

**CHANGING OCCUPATIONAL PATTERN
OF POPULATION
IN UTTAR PRADESH**

THESIS

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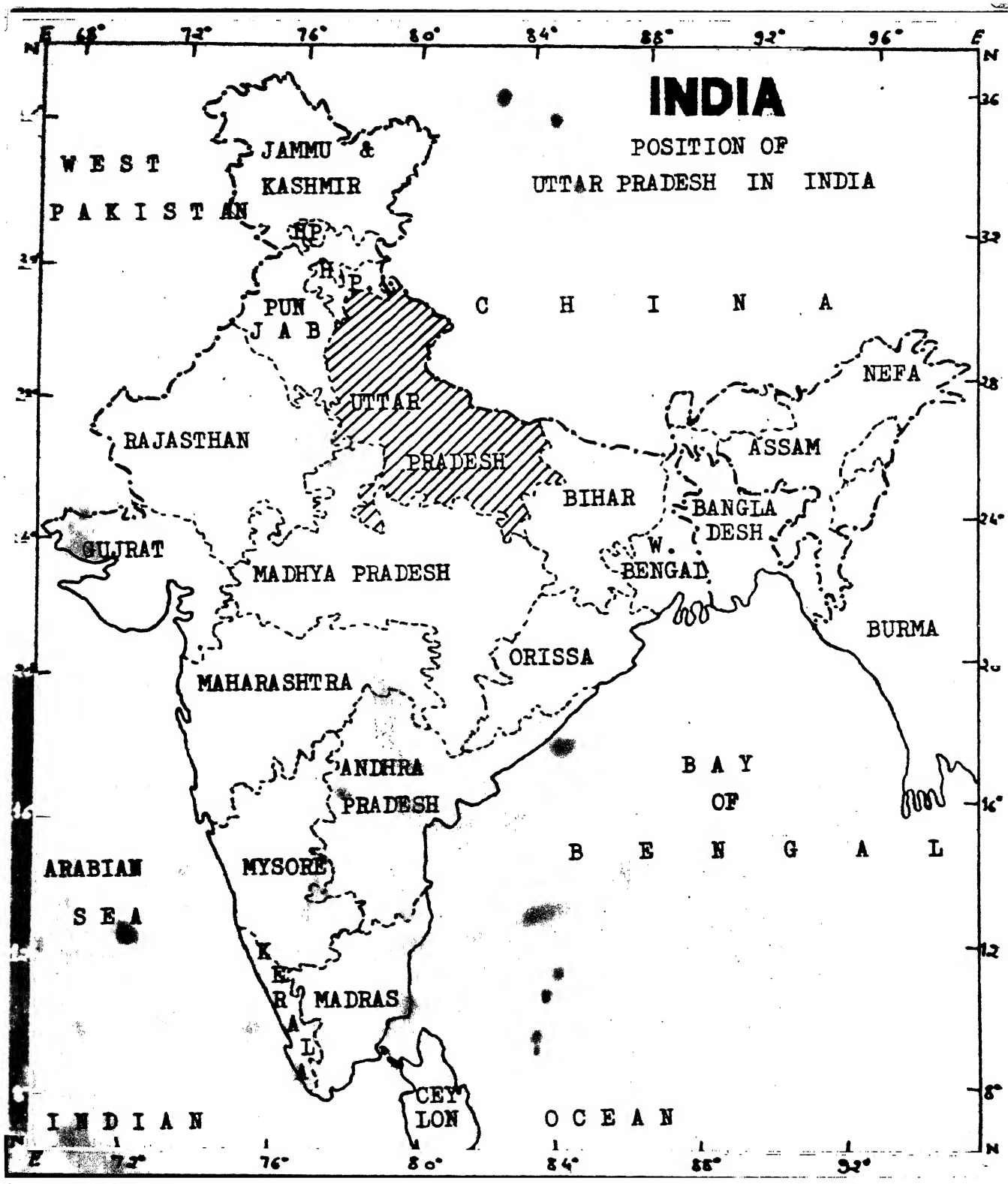
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"What the Census on its occupational side should be able to tell us is, howfar if at all the old system has been shaken and the new system is taking permanent root."

U.P. Census Report 1921

Page 157.



PREFACE

The present study deals with the 'Changing Occupational Pattern of Population in Uttar Pradesh' and covers the period from the very beginning of the institution of census in this State. Occupational change has been understood largely as change in the activities of the members of a society to earn their livelihood. This change is observed in terms of changes in the distribution of these activities in the socio-economic structure of the Society. From this, it is only a step further to describe change by classifying activities in terms of role expectations of different occupations. In so far as social implications of these occupational changes are concerned, generally recourse is taken to the study of occupational groups, and their social characteristics.

The study of changes in occupations of society is more appropriate to the economy of Uttar Pradesh at the present moment when the whole of economy is geared through implementation of development plans to transform the age old agricultural economy into that of highly industrialised one. It is more or less definite that the present economic structure of Uttar Pradesh can not provide needed number of jobs to reduce the backlog of unemployment and create additional jobs to provide employment to those who will enter the labour market in future. However planned economic development will certainly take us much faster to reach the desired destination. The progress of education, urbanisation

of more and more areas, the technological inventions, the socio-cultural advancements and the impact of neighbouring areas all will have combined effect in changing the livelihood pattern of the society. Along with the advancement of the society older occupations will either be discarded or considerably modified to suit the changed conditions. The social forces always give rise to new occupations and also to the diversification of the old ones. This is a continuous social process in which occupational structure remains most fluid. The inter-occupational comparison of the society at two different periods suggests that particular occupations attract more people than others because of their value expectations and the choice of occupation is determined mostly by socio-economic values. It is with a view to maintain link with the past livelihood pattern that a constant vigil is needed and the study of changing occupational pattern of population amply serves this purpose.

Considerable research work has already been done on the changing occupational pattern of the population both in India and abroad yet the subject is so wide that one can continue to work on this aspect of population for any length of time and yet his work will always remain open end pointer for further researches. The Government of India through their Economic Advisor have studied the detailed change of occupational structure of India based on 1941 census data. Since the Census of 1941 provided only meagre and inadequate details of occupations this study does not take one too far to infer any meaningful conclusion. The present study though covers only one state of India (Uttar Pradesh) but extends over a century to provide us with a

definite trend in respect of various occupations.

In my study I have depended solely on Census Reports of Uttar Pradesh and also that of India from the very beginning these are available for this part of the country. Other relevant literature both theoretical and applied has been thoroughly relied upon. The study has further been supplemented by records, references, statistics, maps, charts and diagrams at appropriate places to clear the complexities. The hypothesis has been worked out by taking into account occupational structure of India and numerous other countries of Europe and Asia.

This study has been divided into twelve chapters. The first chapter deals with the theoretical concept of occupation and its historical evolution. The second chapter examines the determinants of occupational structure. Chapter three analyses influence of physical environment of U.P. on livelihood pattern of the population. The fourth chapter studies the impact of caste, race and religion on occupational engagement of the population and the fifth chapter analyses cultural environment in the same connection. The influence of age, sex and education on occupations has been examined in the ^{sixth} ~~seventh~~ chapter. The seventh chapter presents the classification of the gainfully employed population in different census years. The chapter eight makes a study of shifts in occupations. Chapter ninth compares the economy of Uttar Pradesh with certain selected countries. The tenth chapter details the impact of planned economic growth of this State on its occupational pattern and the eleventh chapter compares the occupational pattern of U.P. with these of other states in India to suggest

modifications in appropriate redistribution of working population into different occupations to improve economic prosperity of the masses. Then there is conclusion in the twelfth chapter.

I am profoundly grateful to my research supervisor Dr. R.L. Dwivedi, M.A., D.Phil., Head of the Geography Department, University of Allahabad for his learned guidance and keen interest in this work. But for his help and assistance it would not have been possible to complete this work. His criticisms at several stages of my work have been particularly helpful to me to improve upon this work and make it more meaningful. During the course of this work I have had discussions with different teachers of Geography and also of other Disciplines who showed interest in my work. I am thankful to them all individually for enlightening me on various aspects of the subject of my research.

Mr. R.R. Massey, Assistant Librarian, Allahabad University has been particularly helpful to me in searching out and supplying the needed literature throughout my research period. I am very much thankful to him for his helping attitude. My thanks are also due to Mr. I.N. Tripathi, Librarian, Secretariat Library, U.P., Lucknow who has been good enough to allow me access to well preserved and rare literature of his library and supplied me all the necessary information. I am specially thankful to the authorities of Allahabad University who awarded me research scholarship to carry on this work.

In the end I would like to thank Mr. B.B.L. Bhargava for going through the draft manuscript and typing it out to my satisfaction.

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CONTENTS

	<u>Pages</u>
CHAPTER I - OCCUPATION : CONCEPT AND EXPLANATION ..	1-27
Meaning, History of Occupations, Division of Labour, Impersonal Interest in Work, Occupational Structure of U.P.	
CHAPTER II - DETERMINANTS OF OCCUPATIONAL STRUCTURE ..	28-65
Physical Environment, Social Environment, Cultural Environment, Personal Environment.	
CHAPTER III - PHYSICAL ENVIRONMENT OF UTTAR PRADESH ..	66-91
Profile of U.P., Physiographic Features of U.P. Physiographic Divisions of U.P., Natural Resources of U.P. Natural Resources and Human Activity in U.P.	
CHAPTER IV - SOCIAL ENVIRONMENT- CASTE, RACE AND RELIGION ..	92-120
The Caste System, The Caste and Occupation, Religion and Occupation, The Caste Structure, Scheduled Caste and Scheduled Tribes of U.P., Future of Castes in U.P.	
CHAPTER V - CULTURAL ENVIRONMENT OF POPULATION ..	121-170
Urbanisation and Diversification of Economic Activities, Difference in Socio-economic Pattern of Rural and Urban Areas, Occupational Engagement of Urban Population, Economic Pattern of KAVAI Towns, Future Prospects of Urbanisation in U.P.	
CHAPTER VI - PERSONAL CHARACTERISTICS OF THE POPULATION	171-209
Age Structure, Growth of Labour force, Age Distribution of Working Population, Sex Structure, Sex Ratio of Working Population, Educational Structure, Literacy Ratio, Literacy by Livelihood Classes.	
CHAPTER VII - PATTERN OF GAINFULLY EMPLOYED POPULATION OF U.P. ..	210-238
Occupational Classification of Population in 1881-1891; 1901, 1911; 1921; 1931; 1941; Indian Census Economic Classification	

(Continued)

CONTENTS (Continued)Pages

Scheme 1951-218, The National Classification of Occupations 1961, Over all Picture of Economic Classification of Population.

CHAPTER VIII - CHANGING OCCUPATIONAL PATTERN OF UTTAR PRADESH	..	239-270
---	----	---------

Congestion in Agricultural Occupations, Variation in Livelihood Classes, Livelihood Pattern in different regions, Livelihood Pattern of Rural and Urban Population, Livelihood Pattern of the Present Population.

CHAPTER IX - INTERNATIONAL CLASSIFICATION OF OCCUPATIONS AND U.P.	..	271-289
---	----	---------

Schemes of Occupational Classifications in U.P., Demographic Characteristics of U.P. Compared with other Countries, Occupational Pattern of Population in Selected Countries.

CHAPTER X - PLANNED ECONOMIC GROWTH AND OCCUPATIONAL PATTERN OF U.P.	..	290-312
--	----	---------

State's Economy, Objectives of Planning, Progress of Employment, Future Trend of Employment.

CHAPTER XI - OCCUPATIONAL PATTERN OF U.P. AND OTHER STATES OF INDIA : A COMPARATIVE STUDY	..	313-341
---	----	---------

Occupation and Economic Advancement, Occupational Pattern of U.P. and National Income per capita, Occupational Pattern of U.P. and other States, Suggested Occupational Pattern for U.P., Contribution of Agriculture in Economic Growth of U.P.

CHAPTER XII - CONCLUSIONS	..	342-346
---------------------------	----	---------

BIBLIOGRAPHY	..	347-358
--------------	----	---------

APPENDICES	..	I - LXV
------------	----	---------

LIST OF MAPS

Sl. No.	Details	Facing Page No.
	Position of Uttar Pradesh in India	Title Page
1.	Economica Regions	69
2.	Geology	71
3.	Normal Annual Rainfall	72
4.	Mean Temperature	73
5.	Physiography	76
6.	Soils	77
7.	Percentage of Scheduled Caste Population to total population 1961	115
8.	Percentage of Scheduled Caste workers to total workers 1961	117
9.	Percentage of Scheduled Caste workers to total Scheduled Caste population 1961	118
10.	Percentage distribution of Rural and Urban Population 1971	153
11.	Percentage Distribution of Working Population into Rural and Urban Areas 1961	156
12.	Percentage of rural workers to total rural workers 1961	161
13.	Percentage variation in total population during the period 1872-1971	178
14.	Percentage of workers to total population 1971	184
15.	Percentage of male workers to total male population 1971	193
16.	Percentage of female workers to total female population 1971	195
17.	Percentage of workers to total workers 1961	249
18.	Percentage of agricultural and other workers to total workers 1971	258
		(continued)

LIST OF MAPS (Continued)

Sl. No.	Details	Facing Page N.
19.	Percentage of rural population in non-agricultural livelihood classes 1951	261
20.	Percentage of urban population in agricultural livelihood classes in 1951	262
21.	Percentage of urban workers to total urban workers 1961	266
22.	Percentage Regional distribution of population 1971	268
23.	Percentage of female workers to total workers 1971	269
24.	Percentage of non-workers to total population 1971	270
25.	World:Percentage of working population in different occupation	287
26.	Percentage distribution of non-working ^{ers} 1951	292
27.	Percentage increase in population during plan period 1951-1971	304
28.	Percentage increase in workers during plan period 1951-1971	305
29.	Variation in percentage of non-workers to total population during plan period 1951-1971	307

LIST OF GRAPHS AND DIAGRAMS

Sl. No.	Details	Facing Page No.
1.	Trend of growth of towns and villages in Uttar Pradesh from 1872-1971	134
2.	Percentage variation of urban population of Uttar Pradesh during the period 1872-1971	136
3.	Rank of the twenty two largest towns 1872-1971	140
4.	Application of Pareto Law to population size- and number of towns in Uttar Pradesh	141
5.	Total, Effective and Working population of Uttar Pradesh during the period 1872-1971	177
6.	Decennial Percentage variation in the growth of total and working population of U.P. during the period 1872-1971	182
7.	Percentage of productive and unproductive age groups of each sex in Uttar Pradesh 1961	187
8A	Variation in sex ratio of Uttar Pradesh during the period 1872-1971	194
8.	Literacy rate of Male, Female and total population of Uttar Pradesh during the period 1872-1971	201
9.	Distribution of workers into six main occupational groups 1911-1931	215
10.	Livelihood Pattern of population of Uttar Pradesh during the period 1901-1951	244
11.	Shifts in Occupations by livelihood classes 1901-1971	246
12.	Sex wise distribution of working population into nine-industrial categories in 1961	255
13.	Percentage increase in Male, Female and Total non-workers of their respective total population during the Plan period (1951-1971)	303
14.	Percentage increase in workers and total population during the Plan period 1951 to 1971	303A

(Continued)

LIST OF GRAPHS AND DIAGRAMS (Continued)

Sl. No.	Details	Facing Page No
15.	Total National Income of Uttar Pradesh by Industrial origin	321
16.	Indices of growth of total national income and percentage contribution of productive sectors at constant prices (1960-61) during the period 1961 to 1970	324
17.	Indices of workers into different industrial categories I to IX from 1901 to 1961	334
18.	Suggested occupational Pattern of Uttar Pradesh in 1974	337

LIST OF TECHNICAL TERMS USED

<u>Technical Terms</u>	<u>Page No.</u>	<u>English Equivalent</u>
Kance	43	Outcaste
Varna	43	Caste (Sect)
Jati	43	Caste
Divine	44	Godly
Sanskritic	44	Cultural
Barhi	45	Carpenter
Sonar	46	Goldsmith
Mali	46	Gardner
Zat	47	Caste
Quaum	47	Tribe
Biradri	47	Brotherhood
Bhaiband	47	Brotherhood
Hindu Dharma	49	Hindu Religion
Hinduism	49	Hindu Dharma
Islam	49	Muslim Religion
Muslim	49	One who follows Islam
Jalahas	50	Cloth weaving caste
Darzi	50	Tailor
Agar	51	Nourishing Chemical
Kayastha	64	Hindu caste
Brahman	64	Hindu superior caste
Aryavarta	64	Ancient name of India
Doab	67	Area of Allahabad which lies between two rivers of Ganges and Yamuna
Oudh	67	Muslim kingdom of Nawabs in U.P.

(Continued)

List of Technical Terms used (continued)

<u>Technical Terms</u>	<u>Page No.</u>	<u>English Equivalent</u>
Tarai	70	Area adjacent to the river bank.
Loo	73	Hot dry wind
Bhabhar	74	Grass land in foot hill
Banjar	78	Not fit for cultivation
Usar	78	Not fertile land
Matiyar	81	Clayland
Hariyana) Kakuroj) Nagar) Giri) Sahiwal)	82	Different varieties of bulls
Murrah) Jagarbadi)	82	Varieties of Buffaloes
Gheem Mandi	83	Ghee (Butter) Market
Arya	93	Superior caste
Dasuya	93	Fellow caste of Arya
Sudra	93	Inferior Hindu caste
Khara) Dravid) Yavana)	93	Ancient Indian natives
Gaur) Bhars) Misra)	94	Superior Hindu castes
Kol	94	Inferior Hindu Tribe
Rigveda	95	Ancient Religious Document of Hindus
Veda	95	Religious document of Hindus
Kul	95	Family (Pariwar)
Gotra	95	Sect
Puran	96	Ancient Hindu Document dealing with code of life.
Dasa	96	Servant

(Continued)

List of Technical Terms used (continued)

<u>Technical Terms</u>	<u>Page No.</u>	<u>English Equivalent</u>
Chuhra	97	Hindu inferior caste
Sadhu	101	Hindu Sect
Jogi) Gossain)	101	Hindu sect based on occupation
Bhumihar	110	Hindu Caste
Bharbhunja	110	Grain Parcher
Lohar	110	Blacksmith
Mauza	125	Revenue circle comprising of some villages for the purpose of collection of land revenue
Abadi	127	Habitation
Mallah	155	Hindu caste of Boatmen
Ahir	155	Hindu caste depending on Milk selling
Sir	250	Land cultivated with one's own plough and bullocks
Kachcha	299	Constructed by earth
Pucca	299	Constructed by Burnt Bricks & Concrete.

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Chapter I

OCCUPATION : CONCEPT AND IMPORTANCE

The term occupation is vague and indefinite both as to its meaning and scope. In fact the concept has a varying intellectual content and emotional associations. In modern society with its characteristic division of labour, specialisation of function, exchange of ideas and prevailing ideology, the majority of people engage in a specific and relatively continuous activity in order to earn their livelihood and maintain a definite social standard. "This activity of the population in the terminology of the masses is known as occupation."¹ The concept of occupation is fundamental to the society which is organised in most part of land on an occupational basis. Occupation is a fact which distinguishes one individual from another, giving every individual a feeling of independence and at the same time unites equal men of different origin and background. "Its distribution leaves its impression upon the inner being of individuals, influences fundamentally their external life histories, services as a link binding them to society and provides specific form to the social fibre."²

1. Encyclopedea of Social Sciences Vol. 11-12, p. 426.

2. Ibid., p. 428.

In every modern language occupation has numerous synonyms and the range of their meaning indicates the variation from specific content of the term with the succession of the historical epoch. This variation reflects merely continuous changes in reality to which reference is desired. The meaning of the term can definitely be fixed for a short period only in which it must cover three different sets of facts -- (i) technological, i.e., the specific manual or mental operations involved in the execution of occupational work; (ii) Economic, i.e., the income yield of an occupation which serves to provide a livelihood, and (iii) Social, i.e., the prestige attaching to a person or group by virtue of occupation. These three fold complexity of the term makes possible a shift of emphasis as historical conditions change. The economic aspect of the occupation which is treated as most important at present came to the forefront as late as Medieval Town Economy. Before that era work for an income was not regarded as proper, income itself was considered as function of social status rather than an occupation.

In the present society occupation may be defined as "that specific activity with a market value which an individual continually pursues for the purpose of obtaining a steady flow of income which in turn determines the social position of the individuals."¹ As such occupation is linked up closely with representative social and economic system in which production is not confined to use only but is designed for the market.

1. Turmwald Richard - Economies in Primitive Communities (London, 1932).

Thus the occupational work must be available for purchase in the open market although it need not necessarily be carried on in a business enterprise. Subjectively occupation may be defined as a specific activity by which a living is earned. Objectively the term occupation refers to the linking of individuals into numerous spheres of activity in which modern economic society is divided. Occupational work is individuals' contribution to the national dividend and the sum total of occupied persons constitutes the total labour force of the nation.

The relationship between individual occupation and society is subject to certain conditions even in the modern society. Every individual of the society is not engaged into an occupation. Apart from children, trainees preparing for specific vocations, the sick and the aged all of whom are invariably supported by the working population. Then there are persons with independent means^{of} livelihood such as rentiers, pensioners and the like who share in the national dividend without pursuing any real occupation. Again in recent times continuous unemployment has created a new group of people who though willing are compelled to live without working. Further when an individual engages himself in several economic activities only one is recognised as his chief occupation which determines his social position and yields the major portion of his income. Thus it is correct to say that the term occupation is not rigidly limited to the spheres of hereditary activities. It is subject to frequent changes, merger and sub-division with prevailing economic pursuits.

Occupational lines are shifting and the personnel of any specific occupation is fluid. Yet despite the marked mobility the proportions between the larger occupational strata and occupational structure as a whole remains fairly stable over long periods of time. The modern occupational structure of industrial estates suggests the same stage of economic development all over the world. Their characteristics suggest that two forces are at work - one making for change and the other tending to redress the balance. The social division of labour lies at the basis of occupational differentiation and identifies the past. These two are combined in varying proportions in different societies, the contrast being greatest between an economy with a long medieval history and one developed into a colonial culture. Neither of these two occupational stratification can be explained in terms of economic conventions. Every occupational hierarchy has grown out of a previous set up much of which has been destroyed yet something has invariably been retained - may^{be} only occupational ethics.

History of Occupations:-

Since occupation is not simply an economic or a technological fact, occupational evolution is not merely a part of economic history or an aspect of technological progress. It is in fact an important constituent element of general social history which cannot be fitted into any realistic stage scheme. Even then systematic exposition of social structure must assume at its background a general outline of the succession of economic division of the people. In occupational development

industry, processing and fabricating operations have always been the dynamic factors, perhaps because of the possibilities for division of labour which is inherent in it. It is for this reason that changes in structural organisation of industrial units and their external inter-relations furnish essential and important clues to the occupational history.

Oldest and earliest distinct occupations have everywhere been the spiritual professions -- those of magicians, sooth-sayers, prophets, medicineman, singers and the like. Their professions possessed characteristic monopoly and socially recognised positions yet they were not economic specialist and exercised only a calling in the old sacramental sense of the term. The division of labour proper occurred at first not within the tribe but between the tribes. In the tribal society extraction and raising of raw materials and their processing took place within the same economic units but with a clearly marked separation of functions between the sexes. Symultaneously ~~they~~ took place inter-tribal exchange of goods often with a complex organisation of facts which contravened the usual assumption that trade must have been based on division of labour.

Specialisation of skills growing out of difference in natural aptitudes has been fairly common at later stages of tribal development. Yet the major portion of the maintenance of the specialised families were obtained through their direct efforts. Intracommunal occupational differentiation appeared only with the decay of the tribal society - the mixing of

different ethenic strains. Thus the introduction of slave labour which represents a method of utilising the labour and skill of the captive aliens lead to a loss of the early traditional economic habits. Similarly the use of political authority which dominated several neighbouring tribes created through assurance of peace, helped towards further specialisation of skills, the growth of internal exchange and the separation of occupations as economic entities.

A clearcut division of labour on a large scale took place in the self sufficient 'seignioral' units such as the slave economy of Egypt or the economy of the mediaval 'manor' and monastery. Thus the 'familia rustica' of the Roman Senator embraced an elaborate array of craft specialists; and the slaves of the 'familia urbana' were even more specialised. In the early middle ages conditions were more primitive yet in some European countries technical progress remained dependent upon the seigniorial economy as late as the seventeenth century. In these units specialisation was the immediate distinguishing mark of bondage where free population was not differentiated occupationally. The free crafts after their appearance had many earmarks of their servile origin. The luxury trades which flourished in the Seigniorial units attained a high degree of development prior to the origin of more important trades catering to the general consumption needs of the society.

Division of Labour:-

The social division of labour began with the appearance of the so called wage work - the stage in which the worker owned the tools and the customer provided the raw material. The worker

as a man with a trade, ready to serve any one for compensation, the craftsman became an individual of public character. He enjoyed the reputation of a public office. Similarly the handicraftsman of the wage work period also had important social respect. Occupation now for the first time became recognised as a social category and became much more than a special skill.

The period of wagework continued in Europe till the fourteenth century during which period money economy in the cities had made appreciable progress and the practice of working up customer's material was replaced by the better known form of handicraft organisation, in which the worker owned not only the tools but also the rawmaterials and in some cases workshop also. At this stage crafts became organised into guilds -- a sort of public corporations which furthered the economic interests of their members and assumed responsibility for providing needed goods of assured quality at moderate prices. The guild system developed higher technical skills but commanded all members of an occupation conform roughly to certain prescribed standards of performance. On the economic side there was a vertical split in industrial production -- the separation of phases of the manufacturing process under one roof into independent industrial branches. Such separation necessitated mutual exchange between specialised economies producing for outside markets. The exchange for long time remained closely related to the production and was for the most part of the technical productive operation but within the limits of a single city.

Socially guild handicraft involved the creation of a new

type of property - industrial capital-yielding a constant return which was done previously by land alone.¹ Thus persons engaged in industrial pursuits ceased to be a mere occupational group and became a new property class which as part to the social and political importance hitherto attaching only to the landlord. Politically and economically the guild system lead to the development of a system of industrial self-Government, the autonomy of which was more marked on the continent. The rigid corporate organisation of occupation was the most outstanding feature of the medieval economy. The regulated economy of the guild town society disintegrated by the end of seventeenth and eighteenth century which lead to the growth of a centralised state organisation, unification of large economic areas and radical changes in the technique of large scale production and distribution.

The commercialisation and later mechanisation of industry resulted in a regrouping of occupations and eventually in the creation of a new occupational order. The division of labour in the handicraft system multiplied economic units and the division of labour in the manufacturing and factory -- the new forms of industrial organisation -- created a new permanent class of wage workers. Industrial society divided into two antagonistic classes - capitalist entrepreneurs and the proletarian. Thus the social function of the old occupational corporations passed into the state.

1. Encyclopedea of Social Sciences, Vol. 11-12, p. 427.

As the industrial revolution followed the commercial so the factory succeeded in pulling out the older system of occupational classifications. In the factory system the division of labour involved a technically rational breaking down of productive operations into more or less simple processes to separate workers -- skilled and unskilled. On the other hand the handicraft system admitted of merely temporary gradations of apprentices, journeymen and masters. The factory system was built upon permanent categories of skilled and unskilled labour. Factory workers never mastered all the stages of production even in a highly specialised branch of industry -- instead these were aided and directed by an entirely new class of higher industrial officials specialised into technical and business training. Gradually when an economy marched into highly industrialised era true proletariat began to emerge. The free labour now owned neither tools, raw materials, nor workshop^{rk} - he had to submit to a discipline^{is} imposed by a technical process which he did not even understand.

Impersonal Interest in Work:-

In the present day industrial system a worker has no interest in the success of his industry, in the quality or price of his work. A 'hand' without a face - an item in the inventory of industrial equipment - the factory workers' labour power is purchased to-day like a commodity. The new industrial system and occupational differentiation has led to a change in the relation between occupation as a social grouping and society as a whole. The old system disintegrated under pressure first of territorial and national government and later of the new capita-

list bourgeoisie. Regulations of older system have been replaced by state enactments though still following older traditions in certain respects. The modern system of course does not allow freedom of occupation in a manner previous guild and handicraft systems did.

Modern industrial system does not recognise occupation as an office but it has become merely a social function freely assumed by each individual who balances inclination against economic necessity and pursues the same. The current ideology of 'Service' views occupation as a duty delegated by the society to the individual in the interest of the common good. Emancipation of occupational life releases the energies of the people activating them to a more vigorous and socially efficient pursuit of economic occupations. Yet this emancipation is only from official restraints^{ai} and not a true liberation of occupations whereby they might become accessible to all whose natural gifts and inclinations would fit them for such work. A genuine freedom of occupational choice means availability of opportunities and unlimited discretion in choosing among them. It should result in a complete harmony between man and his job a condition obviously not realised in modern industrial society.

Throughout the greater portion of history the society in all its manifestations have been shaped by authority and primarily by religious authority. Its influence upon modern development can therefore scarcely be denied. A more direct manifestation of the influence of the past is the modern tendency towards a corporate organisation of occupations. This implies

a definite group ideology which may or may not be sanctioned by the state, and the recognition of an occupation as a public entity with special legal rights, fixed powers and a defined internal organisation. In brief the corporate organisation and present occupational system represent two opposed principles of social organisation which are the characteristics on the one hand and the free dynamic and progressive system on the other. The latter characterises every individual with a position exactly suited to his personal gifts, qualifications and wishes.

The structure of all societies before the modern period was predominantly corporate rather than occupational. The modern society lies between the two extremes -- it reflects the movement from the closed to the free society as well as that in the opposite direction. In the modern society doctors, lawyers, scholars, military men and members of the other intellectual and liberal professions who easily develop group consciousness and an internal organisation attain a corporate existence. In the older countries like that of India the proletarian organisations are also in the process of changing from mere occupational bodies into corporate associations. This process would have been much accelerated if the ideology of class consciousness and class strength had not hindered the development of a clearcut corporate ideology and a code of corporate ethics.

The force of tradition in modern society is visible also in the allocation of high prestige value to certain occupations which can scarcely be related to their social utility. In a

occupational hierarchy based on social utility on productivity the prestige for an occupation would have to be in accordance with its market price and in some cases high income would have to offset low prestige. A rough correlation of prestige to income is found only in business occupations and in other fields particularly in liberal professions. Social position is largely independent of income and is often in inverse ratio to it, representing the continuance of the values of the past when a particular calling had a monopolistic character requiring unusual talent or a public function invested with a special dignity.

Occupational Structure of Uttar Pradesh:-

The occupational structure of Uttar Pradesh (India) may be better understood by the comparative view of that structure say in the late 19th or early 20th century. Initially the main occupation of the people of Uttar Pradesh was agriculture which implied numerous status roles and ^{not} only one. The occupational roles of village artisans and functionaries were caste determined. Thus what type of activity would be allotted to an individual was largely determined by his birth in a family and a caste. Labour was not treated as a commodity in earlier days to be sold and purchased. There was no labour market and labour force as there is to-day. This is a big change in occupational relations and occupational structure. This change has cut at the relationship between occupations on the one hand and the caste and family on the other hand.

The detailed information about occupational structure of

Uttar Pradesh is available only through census returns but different occupations followed in our country have not been uniformly classified from census to census.¹ Not only there have been differences in classifications but classifications followed in different censuses have also been defective so that the picture of our economy presented by them is distorted. Since occupation and occupational classifications are such economic characteristics the significance of which has considerably increased in the present conditions of country's economic planning it is essential to examine this information from the very beginning and also the changes made from census to census. Statistics about occupations and occupational classifications have been collected in Uttar Pradesh even since the first complete census of 1881. The first census was conducted in U.P. in 1872 but it was partial in its coverage as to area covered and also as to information collected.

In the first census of 1881 information was collected about 'occupation of men also of boys and females who may do work'. Only such persons were included in it as were actually doing work contributing to family income. Only main occupation of a person was recorded except in case of agriculturist where subsidiary occupation was also recorded. Main occupation was supposed to be one from which income was chiefly derived. The census recorded occupation of only the earning members of the family but the data could not disclose as to how many people actually depended on a particular occupation.²

1. Elhance, D.N.- Economic Statistics of India (1962), p. 81.

2. Ibid., p. 83.

With a view to remove the deficiencies of the 1881 census it was decided to collect more detailed information on occupation in the next census. Accordingly in 1891 the means of livelihood of the whole population - whether worker or dependent was recorded. The heading of the column relating to occupation was 'occupation or means of subsistence' which did not distinguish workers and dependents. The occupation of all persons who worked was noted down and in case of women and children who did not work the occupation of the head of the family who supported them was recorded with the remark of 'dependents' against their names. In this census also secondary occupation was recorded only in case of agriculturists and census recognised both workers and dependents as persons who lived by a particular occupation.

The information on occupations collected in 1891 census was not considered adequate to infer economic conclusions and the government decided to collect more detailed information on this aspect of population. Thus in two censuses of 1901 and 1911 three columns were devoted to the information relating to occupations. There were two columns for occupation or means of livelihood of actual worker - to record separately principal and subsidiary occupation. In this census subsidiary occupation was recorded for all workers and not for agriculturists alone as in previous censures. Third column was used to record the occupation of dependents. Persons who did no work, the principal occupation of the person who supported them was recorded. Although distinction was made in 1901 census between workers and dependents but the demarcation was not very clear and involved sub-titles

of interpretation. Even the distinction between principal and subsidiary occupation was not very clear. Main occupation as in previous censuses was supposed to be one from which major portion of income was drawn.¹

Although collected information regarding occupation was not very clear in previous censuses still no fundamental change was made in this direction in the census of 1921. The vague demarcation between worker and dependent continued as usual. It was in 1931 that significant changes were introduced. In this census four columns were devoted to occupation and details were recorded whether a person was earner or earning dependent. For earners census enumerator noted his principal occupation, most important subsidiary occupation and also the industry in which he was employed. For the first time nature of work of the population was also recorded. Since dependents had no principal occupation their engagement to supplement family income was recorded in subsidiary occupations.² Again a clear distinction was made between working and non-working dependents. An earner was defined as a person who received wages in his principal or subsidiary occupation. Both earners and working dependents were treated as workers. Though attempt was made to collect detailed occupational data but the definition of industry suffered from vagueness and covered non-industry type of employment also. In fact in 1931 census, the number of persons engaged in a particular occupation was equal to the total of earners and working dependents in that occupation.

1. Elhance, D.N.- Economic Statistics of India since Independence, p. 83.
2. Ibid.

The census of 1941 has been a conspicuous gap in the tabulation of occupational data and as such we have no definite information regarding occupational structure during the decade 1931-1941.¹ 1951 census made far-reaching changes in collection of occupational details for the population. There were three questions relating to (i) economic status, (ii) principal means of livelihood and (iii) subsidiary means of livelihood in the census slip of 1951. With regard to economic status information was gathered whether a person was (a) self earning person, (b) a non-earning dependent or (c) an earning dependent. The self-supporting persons were further sub-classified as (a) employer, (b) employee or (c) an independent worker. An attempt was also made to have an economic classification for the entire population to estimate economically active persons of the region. On detailed analysis of census data it was realised that the concepts of earners, non-earners, earning dependents and self-supporting persons were ambiguous and overlapping in many cases. The concepts did not suit non-monetised sector of Indian economy as they were adapted from highly industrialised money economy of the west.

In Uttar Pradesh, the economy is comparatively much under-developed where the producer consumes a large part of his produce by himself.² And most of the population lives just on subsistence. Again the concepts of principal and subsidiary means of livelihood were not real for majority of rural population which lacks differentiation in economic functioning of the

1. Ibid., p. 83.

2. Ibid., p. 84.

society. Census economists were of opinion that the distinction between principal and subsidiary means of livelihood was not important and meaningful for rural population. They recommended the adoption of Household Schedules emphasising on agriculture and household industries. The economists categorically recommended for only two fold division of the population into working and non-working.

Many fundamental changes were introduced in the field of occupational details in the census of 1961.¹ In this census separate schedules were used to record engagement of household in industry and cultivation or in both. It was also recorded whether the household worked as cultivator or in household industry or in agriculture as labourer. In individual census slip four questions related to individuals who were classified as either working or non-working. The working population was subdivided into four groups -- (i) agriculturist, (ii) agricultural labourers, (iii) working in household industries, and (iv) engaged in other works. The non-working population was further sub-divided into eight classes. Thus for the first time in 1961 census an attempt was made to classify in the groups appropriate to the economy.

The system of classifying the occupation has been changing from census to census. 1881 census followed British Pattern of Occupational Classification with slight modification to suit Indian conditions. Since this classification did not suit Indian economy a more detailed seven-fold occupational classification

1. Asthana & Srivastava. Applied Statics of India, p. 87 (1969 Ed.).

was followed in 1891. This classification was devised by Mr. Bains who divided persons into (1) Government, (2) Pasture and agriculture, (3) Personal services, (4) The preparation and supply of material substances, (5) Commerce, transport and storage, (6) Professional and (7) Indefinite Occupations and means of subsistence independent of occupations. These seven classes were divided into 24 'orders', sub-divided in 77 'sub-orders' and 478 'groups'. In 1901 no changes were made in the scheme of occupational classifications and the pattern of 1891 census was followed in this census also.

The census of 1911 made a complete change in the scheme of occupational classifications. In the beginning of this century with a view to provide inter-country comparison Mr. Jacques Bertillon¹ after careful study of prevailing occupational classification prepared a uniform scheme to suit every country with appropriate minor adjustments. His final scheme was approved by the International Statistical Institute which recommended its adoption. Mr. Bertillon divided occupations into four main classes sub-divided into 12 sub-classes. Then there were three series of minor sub-divisions with 66,206 and 499 sub-divisions respectively. Major classes and sub-classes were uniformly applicable to all the countries with changes only in series of minor sub-divisions they selected.

The four main classes and 12 sub-groups of the Bertillon

1. Nomenclature de professions (quoted by Elhance in Economic Statistics of India, Ibid.).

classification were as under:-

Class A - Production of Raw Materials.

- (i) Exploitation of the surface of the earth.
- (ii) Extraction of minerals.

Class B - Preparation and supply of Material Substances.

- (iii) Industry
- (iv) Transport
- (v) Trade

Class C - Public Administration and Liberal Arts

- (vi) Public Force
- (vii) Public Administration
- (viii) Professions and Liberal Arts
- (ix) Persons living on their income

Class D - Miscellaneous

- (x) Domestic services
- (xi) Insufficiently classified occupations
- (xii) Unproductive

The State of U.P. like many other countries of the world adopted Bertillon Classification and continued with that scheme in the census of 1911, 1921 and 1931¹ with minor changes in series of small sub-divisions. The scheme being complex, details of groups excessive to our needs, an alternative scheme of occupational classification was later devised in the census of 1951.

1. Elhance, D.N.- Economic Statistics of India Since Independence, p. 85.

The pattern of occupational classification adopted in 1921 continued in its original form in 1941 census also but was considerably modified in 1951 to suit the changed economic conditions of independent India. The new occupational classification has been referred to as Indian Census Economic Classification Scheme (I.C.E.C.S.) in the census report of 1951. Census authorities of 1951 had the option of using occupational classification prepared by the Population Division of the United Nations for international comparison. The U.N.O. Scheme is named as 'International Standard Industrial Classification Scheme' (I.S.I.C.S.). Certain aspects of U.N.'s Scheme were introduced in Indian Scheme also. 1951 Scheme of Occupational Classification attempted to present a comprehensive classification of entire population and not merely of persons who were gainfully occupied. The new scheme has the unique characteristics of retaining features of previous classifications and also adopted features of U.N.'s Scheme, thus affording both national and international comparison. In 1951 Scheme of Occupational Classification there were four major agricultural classes and four major non-agricultural classes, details of which are described in a later chapter.

All these eight classes been described as livelihood classes and each livelihood class has been further sub-divided into (i) self supporting person, (ii) non-earning dependents and (iii) earning dependents. This classification aimed to provide intelligence about occupational distribution of the economically active population excluding non-earning dependents

and also certain classes of self supporting persons like pensioners, people living on charity, interest and rentals.¹ Even this occupational classification scheme of 1951 was not very appropriate to the needs of our economy. The greatest defect of this scheme was that it was not mutually exclusive. The agricultural classification of the population was vague and confusing which did not provide distinctive demarcation between different activities of agricultural operations. Since manual labour was not an essential condition for agricultural workers, the classification resulted in inflating certain categories of occupations. In brief it can be stated that occupational classification of 1951 did not provide correct picture of Indian Economy.

It was with a view to remove the defect of 1951 occupational classification. The same was altered in 1961 to classify the entire population into two main categories - (i) working and (ii) non-working. Separate record was made for each household regarding its engagement into agricultural and household industries. This classification of 1961 census was different from earlier classifications and certainly an improvement to suit changed Economic conditions.

The working population included those (i) working as cultivators, (ii) working as agricultural labour, (iii) working in any household industry and (iv) those persons also doing any other work.² If a person belonged to more than one category say

1. Ibid., p. 83.

2. Asthana and Srivastava - Applied Statistics of India, p. 87 (1969 Ed.).

in cultivation and household industry he was included in both categories. Persons who were entered in more than one class for them their main and subsidiary occupations were separately recorded. The main occupation was defined as one in which largest amount of time was devoted. In previous censuses the criterion to distinguish between principal and subsidiary means of livelihood was not time devoted ^{but} ~~lent~~ income received. Prisoners who were under trial and were not convicted were entered in the same occupation to which they originally belonged prior to arrest. Similarly patients in hospital were also entered in the category of occupations to which they belonged prior to their admission in the hospital. Convicted persons, lunatics in asylums and persons of the like nature were classified as 'non-working'. All the working population was divided into the following four groups:-

Working as Cultivators : All persons cultivating, supervising or directing cultivation work either as employer, single or family worker or land owned or held were included in this group. Cultivation included ploughing, sowing, growing or orchard development or plantations. Persons who possessed land but did not work it or those who worked as labourers on somebody else's land without authority to decide what to sow or without right to share the profits of the land were not included in this category.

Working as Agricultural Labourer : Persons who worked on somebody else's land in lieu of payment in cash or kind without any responsibility towards supervision or direction of work and

without ownership or tenancy rights were recorded as agricultural labourers in the census of 1961.¹

Working in Household Industries : All persons who worked in household industries were classified in the category with details of individual work and nature of the industry in which he was engaged in Household industry was separately defined for rural and urban areas. In rural areas it was carried on by the members of the household. In urban areas only such industries were included which were carried at the residence of the head of the household by its members. These units were generally smaller in size and included not only manufacturing but also ancillary and subsidiary works also. These industries however excluded professions of lawyers, doctors, barbers, astrologers etc. People who worked in some one else's industry details of work and nature of industry were also recorded. Details were also recorded for hired workers in household industrial units.

Persons in Other Occupations : For such persons who did not work either as cultivators or agricultural labourers or in household industries, the actual work in which they were engaged was recorded. People who worked in other occupations was collected regarding details of work done by them and details of industry, business, trade, profession or service in which they were working was also recorded. Informations for these occupations were recorded in more precise terms and not in general terms such as scientists, technicians, government servant or engineer etc. Further details of additional work other than domestic done by

1. Census of India (U.P.) 1961, Vol. XV, Part A(11), p. 138.

adult women, children and housewives were also recorded in appropriate categories.

Again economic status of all workers were recorded as (i) Employer (one who hired one or more persons for his work), (ii) Employees (who was employed by some body on payment in cash or kind to do a work), (iii) Single worker (one who did his work by himself without employing any body else, or without any assistance from other members of the household). Members of the co-operative societies were included in this category, and (iv) family workers (one who did work without payment in cash or kind in his own family). Only such persons were included in this category who worked atleast one hour each day during working season. Persons who helped in the domestic work did not come in this category.

In 1961 information concerning economic status was collected only for such persons who worked in other occupations only and not as cultivator, agricultural labourer or in household industry. This statistics of economic status was not collected for entire rural population in 1961.

Based on livelihood pattern the entire working population was divided into nine categories of occupations which were as under in the census of 1961.¹

1. Working as cultivators.
2. Working as agricultural labourers.
3. Working in mining, quarrying, livestock, forestry, fishery, hunting, plantations, orchards and allied activities.

1. Census of India 1961, Vol. XV, Part A(II), p. 149.

4. Working in household industries.
5. Working in manufacturing other than household industry.
6. Working in construction activities.
7. Trade and Commerce
8. Working in Transport, Storage and Communities.
9. Working in other services.

Non-Working Population : All persons who did not do any work in categories specified above were included in this category. This category included (i) Whole-time students who did not help in household industry or business, (ii) Persons engaged in unpaid domestic work like housewives, (iii) Dependents including infants and children not going to school and persons permanently disabled due to illness, old age etc., (iv) Retired persons who were not re-employed and persons who lived on rent, pension and charity, (v) Beggars, vagrants and independent women and other persons whose source of income was not disclosed. (vi) Convicts in jails or inmates of penal, mental or charitable institution, (vii) Persons who were previously never employed but were seeking for work for the first time, and (viii) Persons who were previously employed but were without work at the time of census enumeration.

All persons who could not be classified anywhere were classified as beggars.

Criteria for Distinction between 'Working' and 'Non-working Population : Persons who worked for more than an hour a day throughout the greater part of the season in seasonal industries

were included in the working population. In regular and perennial industries, trade, profession, business or commerce persons who were employed on any day during the last fifteen days preceding the date of enumeration were included in the working population. Persons who were employed but could not go to work on account of illness were also included in the working population. The supervision and direction of work also satisfied the criterion of 'working'. Any work which did not augment the income of the family did not satisfy the condition of 'working' and all such persons engaged in these activities were recorded as 'non-working' such as housewives in domestic service. But looking after cattle, fields or even cutting grass was regarded as working. Trainees with stipend were also recorded as 'working'. Persons who earned income but did no work such as pensioners, beggars, rentiers, interest and dividend earners were treated as 'non-working' unless they worked in some industry, trade, business or commerce. However, political and social workers were classified as working.

The frequent changes in concepts of occupations and occupational classifications have rendered comparison difficult. Further the occupational classifications described above refer to one day only as other census data. Since numerous occupations are seasonal in this part of the world, the occupational structure of the population may be different the very next day.¹ Again the distinction between principal and subsidiary means of livelihood has never been clearly distinct, rather it has

1. Elhance, D.N.- Economic Statistics of India, p. 81.

been vague and confusing. As a result of the lack of economic functioning in major part of the rural area, a cultivator may be a Village Accountant (Lekhpal), a blacksmith, a day labour, a watchman (Chowkidar), a repairer of tools, a boatman and fisherman too. The criteria of time involved in distinguishing principal and subsidiary occupations is not very just. Confusion in occupational distinction is created by caste system also.

Here in U.P. as elsewhere in India generally a man's caste denotes his traditional occupation though he may not be following it. It may be stated here for example that a person belonging to Brahman (Priest) caste is called a Brahman though he may be earning his livelihood by working as a clerk in an office.

For proper appraisal of the structure of means of livelihood the occupational classification should be simple and number of sub-classes need be reduced.

CHAPTER II

DETERMINANTS OF OCCUPATIONAL STRUCTURE

An attempt has already been made in the last chapter to define the term 'Occupation' and describe the history of its development through various stages of civilization. It may be repeated here again in very brief, that an occupation may be business, employment, vocation or any other like activity which engages one's time. Now the question arises as to what determines one's engagement. This is the gist of the present chapter which logically follows the previous one. Herein an attempt has been made to describe the factors which determine one's occupation or engagement and these have been called 'determinants of occupational structure'. Since man is born and brought up in society, his social, economical and environmental factors play an important role in determining his livelihood. The climate and physical environment also determine the shape of society and thus these factors cannot be ignored or left out of consideration.

Thus the study of determinants of occupational structure is primarily a study of environments in which man is born and brought up. Among the manifold factors which determine the occupational structure of a region the following few are the

most important:

1. Physical Environment -- the physiographic characteristics of the region.
2. Social Environment -- it includes caste, group and religion.
3. Cultural Environment -- it includes urbanisation and economic advancement of the region.
4. Personal Environment -- it covers the personal characteristics of the man such as his age, sex and education.

All the factors mentioned above can be conveniently grouped into two categories -- (i) Internal and (ii) External factors. The internal factors which include sex, age and literacy are covered by the personal environment of the man. And the external factors cover rest of the determinants which include topography, social environment including caste, religion and cultural environment of the region.

In the pages that follow theoretical appraisal has been made of the above mentioned factors which determine the occupational structure of a region, establish their inter-relationship and inter-dependency. Separate details of these factors are as under:-

1. Physical Environment

The physical environment covers the study of the features and nature of the earth's surface, climate, soils, distribution of plant and animal life. All these factors together determine the physical environment of the area. The human activities are always guided and influenced by the environment in which people

live. The social and cultural environments play an equally important role in influencing the nature of human occupation yet the physical environment plays the larger and the vital role. The location, the relief, the climate, the soil, the vegetation and the animal wealth all differ from region to region and thus different physical environments influence human beings and other activities.

Although every region has its own local environment from physiographic view point yet the two regions situated farther away from each other may have similar soil, climate, topography, agriculture and other human activities. The regions which resemble in climate and topography are called natural regions but it is not essential that human activities must also be similar in these areas. In human geographic regions it is essential that along with natural resemblances, the human environment must also be similar.

The State of Uttar Pradesh in India, the area under study is physically divided into three distinct parts on the basis of relief. All these areas materially differ from each other in terms of soils and vegetations. Thus Uttar Pradesh cannot be termed as a homogenous human region. "The areas which have similarity in natural environment and human activity are called region."¹ Geographically the State of Uttar Pradesh is not even a region. In physical terms one region differs from another not only in natural environment but also in its social and economic characteristics. Kingsley Davis has observed about Uttar Pradesh

1. Kaushik, D.S.- 'Human Geography', p. 245.

"it is a tropical region fertile of soil but dependent on monsoon. It is not a political identity but an area separated by nature from the rest of India. It is a cultural region of a sort made unique by its long isolation, showing great variation from one locale to another, between one group and another. It is a split personality, divided and yet somehow not divided between races, castes, religions and localities. In fact it is a sick region, poor and conflictful yet ready to proceed for economic advancement."¹

The factors which are connected with human beings and activities of their life are called 'environment'. Thus the environment may be both physical and cultural including social. In fact there can be no activity in any region which is not influenced directly or indirectly by the environment natural or otherwise.

The physical environment of a region may be composed of all natural forces, agents, processes and material resources such as rainfall, vegetation and minerals. Taking natural forces into account the physical environment can be conveniently divided into ten elements.² These ten elements are as under:-

1. Space Relationship
2. Weather and climate
3. Landforms
4. Soils

1. Kingsley, Davis. 'Population of India and Pakistan'.

2. Kaushik, D.S.- 'Human Geography', p. 246.

5. Rocks and Minerals
6. Surface Waters
7. Underground Waters
8. Natural Vegetation
9. Animal Life
10. Ocean and its coast

It may not be out of place to mention here that White and Renner¹ have described further elements of physical environment by sub-dividing the 'space-relationship' into five distinct parts. These five subdivisions are: (i) Geometrical position, (ii) Natural situation, (iii) Regional Location, (iv) Regional form and (v) Size and area. All the elements of physical environment directly influence the human life and its activities. The relationship of different elements of physical environment to human life is as follows:-

1. Space Relationship: The space relationship means the location of the regions which are easily accessible to other regions, their location is considered advantageous than those of others. The regions which lie lengthwise face difference in climate in their different parts and consequently in agriculture and crops e.g., Japan and Chile. Contrary to this the regions which lie breadth-wise have similar climate and dependent on it. Their economic activities are also similar in different regions. The size of the region also plays a vital role in determining the activity of its population. Regions of larger size can easily be self-sufficient by following diversified economic activities based

1. White, C.L. and Renner, G.T.- 'Human Geography', pp. 2-8.

on the availability of natural resources. On the other hand smaller regions particularly those of very small size can never be self-sufficient and such regions do not play any role in international or even national economic development. Smaller regions have always to depend on other regions for their economic livelihood. Thus the geographical location of a region affects its climate, vegetation and human living.

2. Weather and Climate : The short period conditions of atmosphere is called weather. The collective condition of (i) average of weather conditions, (ii) constant variations of weather and (iii) changes of seasons is called climate. The climate is the most important element of physical environment to influence and determine human activities of the region. Food habits, clothing, house pattern, the production technique and agricultural crops all are influenced by the climate of the area. The climate can easily be regarded as a measuring-rod of human society. The climate influences physical energy of human beings, their food supply, clothing, houses, their form and structure, availability of building material, culture and also the occupations such as agriculture, industry, animal culture etc. The climate helps in the growth of different kinds of vegetation which human beings have exploited to their advantage differently in different areas.

The climate influences not only production of agricultural crops, industrial raw materials, food and beverages but also their trade movements. Every region produces only those items for which it is climatically best suited and exports its sur.

plus production in exchange for import of needed items which cannot be grown locally. The climate also creates hurdles and thus regulates the movement of population, its travel and transport because of the presence of Equatorial forests, deserts, ice-capped regions, blizzards, storms, fogs and ice-bergers. Thus it can be easily stated that "Climate is the most important geographic factors"¹ in determining human activities. Professors White and Renner have also stated that "of all the geographical influences to which man is subjected, climate seems to be the most potent."² Prof. Sample has described that "Man ranks among the most adaptable organic beings on the earth. No climate is absolutely intolerable to him."³

3. Land Form : The landform is dependent on two factors - (i) the relief and (ii) the configuration. The relief refers to the difference in height of low lying places in the natural region. While configuration relates to the degree of slope of the land. All these information about landform of a region describes the details of the degree of land slopes at different places and also the proportion of flat and slopy land in the region.

The landform effects human habitation. In smooth plains lie all the facilities of human livelihood, e.g., agricultural, irrigation, animal wealth, manufacturing industries and transport

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1. Huntington, Cushing and Shaw - "Principles of Human Geography", (1956), p. 101.
 2. White, C.L. and Renner, G.T.- "Human Geography" (1948), p. 23.
 3. Sample, E.C.- 'Influences of Geographic Environment' (1911), p. 607.

facilities. Smooth plains are most appropriate for human settlements and their development. "The facilities and conveniences for human settlements are comparatively lesser on plateaus and remote on mountaneous regions."¹ The irrigational facilities can not be easily provided on plateaus and mountains because of the absence of plain lands. Even wells cannot be provided in such areas. Since absence of transport facilities is the biggest bottleneck, manufacturing activities can be rarely established on hill tops and on mountains. Thus the landform influences the nature of economic activity to engage the active population of the region. "Japan, Switzerland, Norway and Scotland are mountaneous countries no doubt but people living therein have industrialised their country with the help of hydroelectricity."² Yet it may be repeated once more that facilities for human habitation and economic development are at their maximum in plains. The power and raw material facilities can be conveniently provided on plains and not on hills and mountains. It is because of these reasons that about 98% of world population lives on plains which provide facilities for diversified gainful economic activities.

4. So is : Directly or indirectly soils provide food to most of men and animals. The entire food requirements of vegetarians is available through agriculture and even in case of non-vegetarians the meat providing animals are ^eared on food items produced through agriculture. In this way the soil is most important for human living and determines the productive capacity

1. Kaushik, S.D.- Op. cit., p. 250.

2. Ibid., p. 251.

of the region and not its climate. "The soil emerges from the forces of weathering agencies, vegetation and parent rocks."¹ The different kinds of soils are differently helpful for growth of different agricultural crops and thus indirectly determine agricultural and agriculture based other allied activities of the regional population.

5. Rocks and Minerals : These influence occupational structure of the region in which such resources are available and also in areas which are directly accessible to such regions. Human civilization has developed on the basis of minerals. All tools, implements and machines have been manufactured with metals. As such minerals have helped wonderfully in the development of manufacturing activities, transport, communications, automobiles, television and even atomic power stations. Some minerals are sources of power and fuel while others serve as raw materials. In the present day economic development minerals are the only yard-stick to measure economic prosperity of the nation and determine activities of its population.

Since minerals determine economic advancement of a region, every region tries to be self sufficient in this respect and remains constantly engaged in search of more and more minerals. "Even in such areas where cultivation is not possible and climate is not conducive to health, there also human habitation has been made possible in search of mineral resources."²

1. Somogyi, S.- Matram Peesi (Ed.)- "Applied Geography in Hungary", p. 39.

2. Kaushik, S.D.- Op. cit., p. 254.

The State of Uttar Pradesh is deficient in mineral resources and it is because of this reason that mineral based large scale industries have not been developed in this region. It is satisfying to mention that "deposits of minerals such as copper, iron-ore, sulphur pyrite, asbestos etc., have been discovered as a result of mineral research work done by the Geological Directorate of Uttar Pradesh."¹ These minerals when fully exploited will provide a variety of occupation in different industries to the population.

6. Surface - Water and Natural Drainage : In respect of surface water and natural drainage it can be stated that rivers, lakes, tanks and swamps have very close influence on human beings and their living activities. Water and air are the two most important essential requirements for human life. In the beginning of human civilization all human settlements were made near rivers and lakes but gradually the civilization expanded and human localities were scattered to places further away from water sites. The industries which are dependent on water for their working and also those which use water in large quantities are mostly located nearer to river site. Thus the regions which lack adequate facilities of water remain underdeveloped in respect of water consuming industries.

Rivers also help in production of hydro-electricity and thereby encourage the development of industrial activities in the plain areas. The rivers carry fertile soil with them and leave it on the plains making the later more alluvial and appropriate

1. Second Five Year Plan (Progress Review), p. 67 (U.P.).

for agricultural production and human settlement. Canals are also taken out from rivers to help in the irrigation of land away from river-site. In Uttar Pradesh more irrigation is carried out by canals in addition to wells, tanks and lakes. These tanks, lakes and rivers in addition to irrigation also supplement food supplies by providing fish. Further transport by water is always economical and it connects such parts which remain otherwise unconnected by rail or road. Cheap and economical transport is one of the essential features for the development of trade and commerce. It may be mentioned here that most of the world civilizations have emerged in water villeyes, e.g., Indus Valley (India), Wei-Ho (China), Baby-lonia (Middle Asia) and Nile Valley (Egypt). "Even in modern times most of our important towns are located by river side, e.g., Varanasi and Allahabad (Ganges), Delhi (Jamuna), Calcutta (Hoogly), Mysore (^{uvery}Carrie) etc."¹

7. Under-ground Water : Although surface water is very much helpful in the development of human activities, at times it is inconvenient and even disadvantageous also.

The rain water on the surface of the soil passes to the inner part of the earth through the pours of the soil. This water stops on the impervious rocks and gets collected in huge quantity. The water thus collected on the impervious rocks can be taken out by digging wells for domestic, irrigational and industrial uses. The advantages of under-ground water appear to be lesser but this water is an important contributing factor in the development

1. Kaushik, S.D.- Op. cit., p. 256.

and maintenance of human civilization. The facility of getting under-ground water is an important factor to influence human habitation and human occupation. Agriculture flourishes mainly in areas where under-ground water can be had easily or with lesser difficulty, e.g., Uttar Pradesh and Bihar.

8. Natural Vegetation : The natural vegetation is dependent on the climate of the region or say the climate gets reflected in the natural vegetation of the area concerned. Every vegetation is differently helpful for human living and thus differently helps in the development of human activity. It is interesting to note here that the United Nation Organisation is trying to convert Sahara Desert into the greenland of the world by desalating sea water surrounding it.

9. Animal Life : Animal life comes next to human beings but both have co-operated with each other from the very beginning of civilisation. ^{When} men knew only hunting of animals and not its domestication. Animal culture was not known at that time. Gradually men came to know that by domesticating animals they can get milk, wool, hides and skins also in addition to meat and meat products. Men did use animals for riding and transportation purposes also. In the present day society men use animals for domestication, hunting and for food (small animals like poultry, fowl, etc.).

10. Oceans and Its Coasts : This element of physical environment is not present in all the regions of the world as some or say most of the regions are located far away from sea. Yet ocean and its coasts are very useful for human settlements. Oceans

effect climate, food supplies, mineral resources and provide industrial impetus, trade and journey routes, power resources and health resorts. Oceans also help in the development of modern civilization. Most of fish supplies and salt is available from the sea. A country without seak port has no place in the development of international trade.

Concluding the role of physical environment as determinants of occupational structure it can be stated that all the elements of nature influence human form, human health and human activity. "Man has always adapted to his environment and is perhaps the only creature of the world who has entered all the corners of the world in all climates."¹ Men have admirably adjusted their food habits and living habits according to natural environment. It is within the limits of natural environment that human choice plays the most vital role and modifies the surroundings by area organisation in accordance with his needs. The area organisation although modified in accordance with human needs always stands dependent on human wants, tastes and faculties of the people.

Thus the cultural environment is developed by men by using elements of physical environment in his surroundings. In turn cultural environment created by men also effects natural and physical environment in its exploitation for the wellbeing of man-kind. The natural hinderances are tamed and overcome to suit human requirements which in process determine the nature of human activities to achieve his targets.

1. Balchin, W.G.V.- "Geography and Man" - A practical survey of life and work of men in relation to his natural environment.

2. Social Environment

The social environment is a very wide term and includes everything connected with man's society. The word 'social' means having to do with human beings living together as a group in a situation requiring that they have dealings with one another. Thus living in this way the family may be a social unit. The word 'environment' as already explained earlier means something that surrounds, i.e., all conditions, circumstances and influences surrounding and affecting the development of an organism or group of organism. Since the word 'occupation' means some activity which engages one's time may be business, employment or vocation, it would be rather too optimistic to include all components of man's social surroundings to study their impact on his engagement. Yet an attempt has been made in the pages that follow to study the more close and direct factors which influence man's economically gainful engagement. As such in this section of study caste, tribe and religion as potent social factors have been included which influence human occupation. These social factors are described as follows:-

1. Caste : The caste is one of the oldest, the most peculiar and at the same time the most fundamental feature of the society. To the great majority of Indians it is still an absorbing focus of attention and caste application is a constant means of identification. The caste control over individual's behaviour is still strong throughout. In one way or the other the caste affects morality, fertility and migration of population. It influences economic and political matters as well.

The word caste has been defined to mean "any of the distinct heredity Hindu social classes, each formerly excluded from social dealings with the others e.g., Brahman, Kshatriya, Vaishya and Sudra."¹

Although the formal freedom of occupations has dispensed with many tangible obstacles to the attainment of this ideal, a great many factors still operate to prevent a perfect correlation between individual capacity and its occupational utilisation. Although the improvement in transportation, communication and organisation of labour market favours greater geographical and to a certain extent occupational mobility of labour, immigration barriers check the inflow of labour from the outside. The social security occupational or even social prejudice tends to establish if not to exagerrate the deviation in empirical distribution of occupations from the ideal norm. More even in a stratified society the class factor always leaves its impressions upon its occupational structure. In addition to the fact that among individuals the distribution of physical capacities and mental faculties is uneven, the discovery, cultivation and development of such gifts or talents can never be made equally applicable to all the members of the society.

The detailed analysis of occupational statistics in most of the regions clearly reveals that the social status and occupational differentials run counter to the dislocation. The caste is said to be a dominant factor in determining one's economic

1. Webster's New World Dictionary, p. 228 (1962 Ed.).

activity. "In the sub-continent of India there are numerous occupations even to-day which are governed by the caste and social status of Individuals."¹ The caste system is peculiar to India alone where castes have geographical as well as social boundaries. The mobility removes a man from the local caste group and often makes the life uncomfortable for him by virtue of the ubiquity of caste restrictions. "A man who is long away from his home is often looked at as Kance on his return, he is suspected of having broken the rules of his caste and he may find it hard to regain his old position."²

Caste is not occupational in origin. Initially it was only characterised by some freedom about occupations in the beginning of the 15th century. History too has provided examples of castes following different occupations and of members of the same caste following different occupations. Yet in theory from the very early times occupations have been prescribed Var,wise and 'Jati' (caste)wise. Varnawise specification of occupations is believed to be inherent in the nature of alleged D vine origin of the institution. The unfreedom of occupation in actual operation at the beginning of the 13th century was accompanied by a staunch belief that almost everyone of the large number of castes had occupation which was its own, traditional and hence the hereditary occupation of its members, to abandon which in search of another was atleast not proper, if not actually sinful.

1. Davis Kingsley - 'Population of India and Pakistan'.

2. Census of U.P., 1931, p. 86.

Different valuation of occupations current in a society has been a mark of not only all civilised societies but also of many primitive or non-liberate ones. Even in the modern societies of the west like those of English and American this valuation has remained a characteristic feature of their social structure and social psychology. "In 19th century caste society of India there was a fairly accepted scheme of social precedence, hierarchy of occupations and group of occupations."¹ In the Indian valuation of occupations the medieval feature of rating non-manual work as superior to manual work which even in contemporary Britain and the United States of America is tacitly assumed was present but was superseded in actual operation of the principle by the more important consideration of caste and the sacred Sanskritic lore. The other aspect of social valuation of work viz., whether it is concerned with material activity that is clean or unclean, pure or impure, polluting or non-polluting which was manifest occasionally and sporadically in medieval and more ancient societies was so prominent in the 19th century Indian society that it can well be looked upon as the factor determining the social worth of work or occupations. But the valuation was so much inherent in the caste system itself that it hardly obstructed on the conscious social scene. Almost universally it was the group of non-polluting occupations commonly believed to be the open field for the non-polluting upper castes round which proper valuation was focussed. In Indo-Aryan era at least upper caste people guided themselves in the choice of occupations to the extent such choice was feasible in a largely

1. Census Report, 1931 (p. 242), U.P.

static and rural society based on work and occupations differentiated and specialised more than a thousand years earlier by the saying "Best is agriculture while trade is middling and service is the lowest of occupations."¹

Mr. Blunt in his classic treatise on the caste system says "Among all Hindus there is a probably a tendency towards hypergamy. A curious proof of this fact is provided by the statistics of birth in U.P. In two successive Census Reports of U.P. (1911 and 1921) it is shown clearly that the Bulk of persons living in districts other than that in which they are born are women, secondly that the migration is from east to west. As the lower branches of the wide spread caste, generally speaking live in the east of the province and the higher in the west, the conclusion that hypergamy has something to do with the nature of this marriage migration as well as with occupational engagement."² This fact was also pointed out in 1901 census report of Uttar Pradesh.

The Census Statistics of Uttar Pradesh clearly reveal the extent of traditional occupations. The term traditional occupation means the occupation with which a caste is particularly associated. There is nothing to show that the castes which are most agricultural are traditionally agricultural and it can be taken as certain that they were never so in the same way as Barh s (carpenters) are traditionally carpenters. They were

1. U.P. Census Report, 1931, p. 242.

2. U.P. Census Report, 1931, p. 243.

probably never tied down by customs and caste rules to agriculture as Barh a were to wood in work and Sonar (Goldsmith) to work in precious metals, the trail of the trade guild has never administrated them. In some cases the present occupation is an expansion of the former traditional occupation, e.g., Malis (Gardners) now work as gardners.¹

The census statistics support the view that majority of population in Uttar Pradesh still adheres to its traditional occupation governed by the caste pattern, although expansion of education has greatly influenced this trend into new occupations.

In the society if all the members of each caste followed the same calling it would be easy to group castes according to occupations, but this is not so. The common belief that castes are occupationally specialised is partly due to the ideal theory of caste and partly to the potent fact that many castes do follow one occupation predominantly. Even when a caste has no actual line of work in common it is also identified with a traditional occupation although the classification of caste has little significance unless the same is actual one. The statistics of 1931 census proved that only 45% of the caste members follow traditional occupation. In general more than half of the male workers are engaged in a line of work historically associated with their caste and in many cases more than 70% are so engaged.

Let us not forget the fact that about 70% of India's gainfully employed males are in agriculture even to-day. If the

1. Census of U.P. 1921 - Caste of U.P., p. 412.

traditional occupation of a caste happens to be agriculture it is true in numerous cases. The table below gives the percentage of U.P.'s workers engaged in traditional occupations:¹

Table No. 2.1

TABLE SHOWING PERCENTAGE OF WORKERS IN TRADITIONAL OCCUPATIONS

Activity	Percentage of workers engaged in traditional occupations
Dealers in Food and Drink	37
Agriculture	91
Labourers and village artisans	14
Pastoral	20
Learned Professions	20
Boating and Fishing	9
Trade and Industry (specified)	51
Trade and Industry (unspecified)	70

Available statistics have proved the fact that literate castes have changed from traditional occupation more frequently than less literate castes.

2. Race and Tribe : Theoritically there may not be much to distinguish between the caste, race and tribe yet it has been true in most of the countries that racial and tribal differences also disturb the occupational distribution. The word caste is compared of two terms with different meanings. The first is Zat i.e., breed or specie and the second Quam i.e., tribe. The second term is B radari or Bhalband (Brotherhood). Zat is caste as a

1. Census of U.P. 1931, p. 445.

whole and Biradari is the group of the caste brotheren who live in a particular neighbourhood and act together for the caste purposes. "Quantitatively Biradar is a mere fraction of the Zat and quantitatively it is Zat in action."¹ Race is different from caste, it is family, tribe, breed or descent. Thus race can be termed as a group of persons connected by common descent. The Webster's New Word Dictionary states that "any major biological divisions of mankind distinguished by colour and texture of hair, colour of skin and eyes, stature, bodily proportion etc., may be termed as race."² A race can also be stated as a population that differs from others in the relative frequency of some gene or genes. Thus in its broad sense a race differs from the caste which is only a social distribution of people living in a society. On the other hand a race is a group of people bearing characteristics different from others in the same society. The tribe is still different. It means class or distinct class of people. Originally it meant group of barbarous classes under recognised chiefs. A tribe means any group of people having the same occupation, habits, ideas etc., chiefly in a derogatory sense. In Indian society even these days we have tribes which means people who have no permanent home and move in group from place to place throughout their life.

3. Religion : In the social environment of any region, the religion is as important as caste if not more. Even after twenty years of economic planning and expansion of education, religion is still taken very seriously and plays an important role in the

1. Kingsley Davis. 'Population of India and Pakistan', p. 163.

2. Ibid., p. 197.

life of the people. In areas where religion is taken very seriously and is applied to all aspects of life the followers of different faiths become peoples set part. Each group tends to have its own folk ways and moves, its own outlook and its own allegiance superior to all others. Each faith in due course of time becomes a nation in itself. The Hindu Dharam covers the whole field of conduct in all its under relations. Islamic civilization is concentrated around the religion of Islam which makes a bifurcation of human civilization into two groups --

(i) Islamic true and real and (ii) all other religions as heterodox and false. From numerical point of view only two religions are important in Uttar Pradesh and in all other states of India. These religions are Hinduism and Islam.

It may not be inappropriate to mention here that "in the field of agriculture (India's most important means of livelihood) technological advance is restricted by caste restrictions on the type of labour by hereditary taboos, by ritual values of the dung and by the veneration of the cow. Even in the field of medicine the progress is retarded by religious taboos on the treatment of women by male physicians, the prejudice against women entering the nursing profession, the definition of midwifery as unclean occupation and taboos on contact with dead bodies and hence dissection. Economic advancement is handicapped by the muslim taboos on money lending, heavy borrowings for ceremonial rather than for production purposes, by obligation with joint family and by the occupational restrictions on caste and religion."¹ In Uttar Pradesh the religions' grip on details

1. Kingsley Davis, Op. cit., p. 165.

of life is much stricter than in western countries. Social restrictions of both Hindu and Muslim religion prevents friendly contacts and social mixing of womenfolk.

Although religion influences the occupation of the population but this does not mean that followers of the same religion follow one single occupation or the same group of occupations. In each religion followers do follow different occupations determined by their caste, group, education and social environment. Hindus generally out-number all other religious put together in all occupations except industries where they are next to muslims. Many industries are particularly practised by Mohammadans alone. The Weaving industry of Juahas, tailoring industry of Darzi is largely dominated by Mohammadans who are definitely lesser in number in textile, wood, metal and food. Hides, ceramics and refuse are considered chiefly Hindu industrial occupations and they are Hindu preserve. Similarly Christians have taken to transport, Europeans and Anglo-Indians to railways and Aryas are chiefly found in arts and professions. Jains are in considerable number only in trade as Sikhs are in public force.

Distributing the followers of specific religion into different occupations one notices that "75.6% Hindus are cultivators, 10% agricultural labourers, 22% in non-agricultural occupations or in those closely connected with agriculture. In the group of non-agricultural occupation 4% are engaged in trade and 10% in various industries. Among Mohammadans only 50% follow pastoral or agricultural pursuits, 4% work as agricultural labourers and 7% are engaged in trade, 9% in cotton textile, 6%

in clothing and 3% in industries connected with food. To be very precise Hindus are far more engaged in occupations of a rural nature than Mohammadans who are urban in their residential character. 23% of Indian Christians follow agricultural pursuits and 32% are engaged in industries. Of Aryas 66% are agriculturists, 13% are in trade, 5% in learned professions and 6% in Industries. Of Jains 66% are in trade and 22% in agriculture. Of Sikhs 30% are in public force and 43% in agriculture."¹ These figures represent the characteristics of different religious communities of Uttar Pradesh. Thus caste and religion both influence the occupational engagement of population to a considerable extent.

3. Cultural Environment

With a view to have a detailed idea about influence of cultural environment on the occupational engagement of population it is essential that one must be very clear about the term culture. The Webster's New Word Dictionary defines culture² to include the following:-

1. The cultivation of soil,
2. Improving or developing of some plant, animal or product,
3. The growth of bacteria or other micro-organism in a specially prepared nourishing substance as agar (AGAR).
4. A colony of micro-organism,
5. Improvement, refinement or development by study, training etc.
6. The training and refining of the mind, emotions, manners, taste etc.

1. Census of U.P., 1911 (p. 148) Report.

2. P. 358 (1962 Ed.).

7. The results of the refinement of thought, emotions, manner, taste etc.
8. The concepts, habits, skills, arts, instruments, institution etc., of a given people in a given period and civilization to (i) cultivate and (ii) grow organism in a specially prepared medium.

The term cultural includes man made land marks as cities, highways, dams etc, Specially seen from the air. Detailing the cultural environment Dr. Kaushik¹ mentions six main elements. He states that cultural environment includes man made commodities, visible processes, organisations, traditions, scientific advancements and individual technology.

To sum up all the elements of cultural environment it can be stated that (i) urbanisation and economic advancement of the region, (ii) its industrial and technological development and (iii) availability of power coupled with (iv) net work of transport and communication facilities altogether exercise considerable influence on the occupational structure of the population. The individual elements of the cultural environment are no doubt separate from each other but collectively they create conditions in which they get influenced with each other to dictate human activity.

The cultural environment bears a composite effect on population wherein every element effects human activity individually as well as collectively. Sometime one element of the environment when coupled with another environment stimulates altogether a new

1. Kaushik, D.S.- 'Manav Bhoogole', p. 48.

activity, e.g., excessive slope coupled with excessive rains leads to soil erosion. On the other hand some elements counter act each other, e.g., vegetation growth on mountaneous slopes helps in stopping soil erosion. Economic activities of the population in any region are considerably influenced by its cultural environment as well as by cultural contact with other regions. Men have always taken advantage of the experiences of others to plan their welfare through cultural contacts.

In one way or another human race of one place has been establishing cultural contacts with those at other places and culture of one region has always been influenced by the culture of other regions. The culture of one area leaves deep impression on the culture of other areas compelling the latter to change and modify itself suitably. Though distance plays an important role in establishment of cultural contacts yet knowledge has crossed the barrier of this handicap. In the views of Mr. C.D. Forde¹ "Diffusion (of knowledge and culture) does not proceed automatically to the areas environmentally best suited to it or to the people most receptive : distance and accident play an important part."

In 19th and 20th centuries British culture was adopted by people of many countries like India, Ceylon, Burma, Australia, Canada and South Africa. People of these countries have taken to English language and English culture when Britishers have taken to none of the living habits of these countries. The fact is that economically and technologically developed countries are

1. Forde, C.D.- 'Habit, Economy and Society' (London, 1967), p. 6.

always copied by less developed areas to their advantages and not the vice versa. There is historical evidence to this effect. About five centuries back when Indian, Greek and Egyptian civilization was more developed than those of other countries, their culture was copied by many underdeveloped countries of the world. In modern times culture and technological developments of America, Britain, U.S.S.R., Germany and Japan are copied by other countries.

Cultural contacts lead to the development of new type of economic activities and stimulate human progress. Backward regions always adopt the industrial and technological developments of developed areas. It is only because of cultural contacts that we notice Western dresses and Western technological developments in many Eastern countries. The technique of cultivation, mineral extraction, trade, transport, communication, war strategies and even technological developments all are becoming uniform all over the world because of cultural contacts. Human activities are also tending to become uniform because of uniform level of economic development in different areas. Jacques Bertillon¹ has really done a great service by suggesting an uniform classification of occupations which suit all countries of the world.

Urban sation of the Region :- There is always shift in the occupational pattern when a region is transformed from rural to urban one. As has been discussed in detail elsewhere in this study, the division between village and town does not depend solely on the size of population although it is a vital factor.

1. Jacques Bertillon- 'Nomenclature de Profession'.

Since most of the cities have grown through migration rather than natural increase and their main attraction has depended on economic opportunities rather than way of life or recreational facilities, it is expected that the most rapid growth would occur in industrial cities. One can test this phenomenon by dividing the cities into classes in terms of the percentage of workers engaged in certain selected occupations. In Uttar Pradesh this division has been done earlier with reference to industry alone and then with reference to industry, trade and transport combined. Available statistics disclose that cities with greatest proportion of workers in industry alone or in all the above three combined tend to grow faster than the cities with smallest proportion. Thus there is every reason to believe that in Uttar Pradesh cities are growing because of some economic factors that prompted urban growth in the western countries in earlier stages. Further more the data furnish independent evidence of the view that the economic opportunities made available by modern economic life constitute the main attraction drawing migrants to the cities.

Occupationally it can be stated that agriculture is typical of rural and industry peculiar to urban areas. Since industry embraces handicraft production in home, the same is equally common in rural and urban areas. Literacy in Uttar Pradesh as elsewhere in India tends to increase by the size of cities. The increase of literacy by the size of the city is much sharper for females than for males. The greater equality for male and female literacy in the larger cities makes them the point of modernisa-

tion in Indian religion. The Census Report of 1941¹ states that city life has begun really to appeal to the ordinary middle class or lower middle class in India because accomodation within his means and to his taste has now become available in these areas.

Economically urban areas provide more opportunities for employment of the population because of the presence of factories, industries, offices, residences of big businessmen and big politicians. In rural areas only means of economic engagement of the population is in agriculture, handicrafts, household industries and to a limited extent in public and personal services.

4. Personal Environment

Among the four environmental factors which determine occupational structure of the population, the personal environment is by far the most important. As the term implies personal environment includes such characteristics which remain personal in the man and make him fit to take up or engage in some particular economic activity. These personal characteristics are (i) sex, (ii) Age and (iii) Education and Training. An attempt has been made here to describe the influence of these personal factors in determining the occupational pattern of the population. This description is as under:

1. Sex :- Sex is very important in determining the working force of a region. The entire population of any region consists of males and females who engage themselves in the gainful economic

1. U.P. Census Report 1941, Quoted by Kingsley Davis, op. cit.

activities of the place to make their living. Although in the modern society no distinction can be made on the basis of sex for providing employment, still females cannot adjust to all occupations. It is also correct that all females and all males do not take to economic activities. Available statistics provide information that "Of the total population about 52.8% males and not more than 8.8% females take to occupations."¹ Thus sex composition of the population is essential to determine its occupational engagement.

In a population consisting of more females than males the economy will be disturbed as majority of females will not work and will be dependent on the male population for their livelihood. In such a population available labour force may be lesser than that required for successful exploitation of natural resources. Contrary to this, in a region where male population exceeds the female population, there may be more people than jobs available for them and consequently causing unemployment.

The assimilative capacity of modern society is greater with regard to occupational employment of women. "The sexual barrier to occupation, one of the oldest and until recently the most inpregnable has been almost completely removed in the modern society. The women's work which was lost in importance with the decline in the economic significance of the household has regained since the emergence of industrial capitalism through the employment of women outside the home. While there is considerable difference among occupations in their accessibility to women and

1. Census of U.P. 1971 Paper 1 (Supplement) Provisional Population Totals.

while the proportion among women varies by countries, national groups and income class, women's occupational work is an essential not easily dispensable element in the modern economic order. At present formal limitations upon women's freedom of occupational choice have no quantitative importance, they are of a recent origin and are based upon consideration of racial hygiene and social morality."¹

With the exception of females of lower classes, women in India as well as in Uttar Pradesh are not producers of material wealth because of social customs which keep them away from economic occupations. The average sex ratio also results in social and venereal disproportion impairing the morale of workers. Yet immediate decrease or increase in population depends on sex ratio. "The excess of males tends to lower the age of marriage for females since the number of females falls short of the number of opposite sex. Early marriage leads to considerable disparity in age between husbands and wives resulting in increased widowhood which effects the available labour supply."² An excess of either sex may be caused by (i) more births of that sex than of the other, or (ii) by the possession by the children of that sex of some character which tends to their preservation, probably greater resistance to certain diseases.

Participation of women in economic activity has been common in developing and developed countries. In the Western industrialised countries the trend of women's employment has augmented due

1. Kingsley Davis, op. cit., p. 182.

2. Encyclopaedia of Social Sciences, op. cit., p. 1120.

to a variety of factors such as the mechanisation of home appliances, the increasing desire of women for independence and also reduction in the size of families. The old attitude towards women workers had their roots in the ideas of chivalry of the middle ages when women were protected from the realities of life and their place was in the home only. It is strange that these concepts have persisted till modern times. In urban areas more women are expected to take work because of spread of education, development of means of communications, growing desire to live better and liberalisation of traditional social conventions disfavouring women employment.

2. Age :- Age is another important factor which determines the occupational structure of the population. The composition determines the total labour supply which in turn determines its flow into different occupations. Every member of the population does not participate in gainful economic activity of the society. Children below the age of 14 are tender in constitution to bear the physical or mental burden and because of their immaturity they cannot be entrusted with responsible jobs. Likewise persons of the age group beyond 60 become too weak to undergo physical strain. Since these people of the age of sixty and above have worked hard throughout their life they want to retire and rest for the remaining period of their life. Thus the ~~population~~ ^{people} falling in the age group between 15 - 59 are physically available for participation in economic activities for augmentation of national income and for providing livelihood to themselves and to their families. It is correct to say that working age group of the population is 15 - 59 but every individual in this group

is not available for work. Numerous factors such as physical body built, health, wealth, education, training, sex and above all the availability of job to those who want to work determines the active occupational participation of the population.

Even in the active age group if males exceed the number of females it will mean that more people are available for work because majority of male population seeks work for livelihood. However, if the society is dominated by females comparatively lesser people will be available for employment because most of the females prefer to remain in their home rather than to work. In such a society the liability per male person will be much more and financial stability will be at stake.

It is correct that majority of unskilled jobs do not require any training yet some general education is a must which is closely associated with age composition of the population. The age distribution of a society can be shown in the form of pyramid. The base is 0 - 15 in which we have largest proportion of population. This pyramid gradually narrows down as the higher age groups are reached until it finally tapers to a point because after certain age there will be no persons to record. The shape of pyramid will differ according to the relative proportions between the different age groups in total population. In Uttar Pradesh the age pyramid has the broadest base owing to comparatively high birth rate. It has the largest proportion under 10. The pyramid of U.P. tappers towards a point more sharply than in the case of any other indicating inferior longvity of population. Only few people live beyond the age 60.

The age pyramid of the population can be divided into three groups -- 0 - 14 (children); 15 - 59 (working population) and 60 and above (older people who are out of active population). The factors which differentiate the character of age constitution of U.P. from that of any Western country are (i) Low proportion of working population, (ii) High birth rate accompanied by high death rate and (iii) Low expectation of life. Once the United Nations Organisation observed: "One of the chief obstacles to economic development is the manpower shortage which exists in the so called over populated countries."

It can be safely stated that there may be tremendous loss of economic power in the country owing to shorter duration of life. There may not be enough adults available for work due to age structure of the population. Only a small population of adults may be available for employment because of social customs which may retard the progress of economic development. Uttar Pradesh has a smaller proportion in the working age group because of the heavier mortality before the working age is reached and a shorter working life of those who enter it.

3. Literacy and Education: Among the three personal factors which influence the occupational structure of the population, education and training both play an important role. All the jobs in the society can easily be grouped into three broad categories: (i) unskilled jobs, (ii) skilled jobs and (iii) technical jobs. Generally no education or training is needed for unskilled jobs which are mostly manual in character requiring physical strength only. Semi-skilled jobs though do not require any technical

training yet a good deal of general education is needed on the part of workers to perform the same efficiently. On the other hand technical jobs require intensive education and ~~technical jobs require intensive education and~~ technical training to make the worker efficient. In India in general and Uttar Pradesh in particular literacy has failed to progress appreciably due to shortage of demand rather than due to shortage of supply. The demand is not likely to increase in the near future.

The occupations in which literacy is required are those of trade, public administration, professions and liberal arts. Neither the definition of literacy has remained constant nor data on literacy uniform from census to census in India. The entire population has at all stages of her development been classified into two broad categories of literate and illiterate. It was only in few censuses that a third category of learners was also divided but it was confusing and did not serve any purpose. Ultimately this category was dropped.

The education determines one's occupation. In Uttar Pradesh all such persons who have received some education do not want to practise occupations requiring manual labour. Unfortunately the economy of the State has not been so much developed as to provide white collar jobs in needed number with the result that educated population suffers from unemployment and frustration. A survey conducted by the Directorate of National Sample Surveys of the Government of India concluded that majority of educated^{ed} unemployed persons wanted clerical jobs.

The education of population by itself does not determine

their occupation rather it is educational distribution of population by age group which influences the occupational structure. If most of the people falling in the category of 0 - 14 and 60 and above it will not influence the occupational structure till such a time when the educated population of 0 - 14 enters the active age group of 15 - 59. Thus educational standard of the population in the age group 15 - 59 influences the occupational distribution. Here it may be made specifically clear that for the purpose of the study of occupational structure literacy is not the same thing as education. The Census authorities have defined such persons as literate who can read and write their signature. To be educated only this much is not enough but a person must have attained some educational standard or say must have undergone some schooling.

Thus the educational standard of population in its age group of 15 - 59 will determine the liking of people to enter particular occupations. Here also, the education of females does not matter much because most of the educated women take to teaching and hardly few go to other occupations. It is only the male population which when educated according to the needs of the economy will diversify its engagement into different occupations. As regards the general character of education it may be stated that literacy is more wide spread in urban areas than in rural areas. The Western part of U.P. has gone ahead of the Eastern part. Himalayan West is far more literate than any other division which is due to social reasons. The Plateau and the Eastern Plain have made considerable progress. The progress of literacy by districts has not been even in U.P. since the attainment of

political independence. Castewise, Hindus have progressed more than Muslims in matters of literacy. Among Hindus Kayastha and Brahmans are much more educated than other castes of Uttar Pradesh.

Lack of education has affected mobility of labour force from one place to another. With some 225 languages the Indian sub-continent suffers from a linguistic barrier to special movement. The diversity of languages however, is only a striking instance of the general diversity of custom. An individual moving from one place to another encounters numerous customs different from his own and consequently encounters prejudice. Mobility is the result of an idea - an idea as to what lies some where else. The lack of education among people of this State does not encourage people to move out from their home locality and find better living opportunities elsewhere. Expansion of education among masses in recent years and particularly during post-independence period has overcome some of these prejudices.

It is because of difference in educational standards that the occupational pattern between city and country shows a sharp distinction in U.P. as well as in India. The percentage of workers in agriculture in rural areas is around 75% while it is not more than 10% in urban areas. The rural population is distinguished by its virtually complete devotion to a single occupation but there are a wide variety of occupations for engagement of the population in urban areas requiring different degree of educational standards.

In a recent survey of Uttar Pradesh conducted by the

Government¹ as much as 64% of the urban population is illiterate. Females are proportionately more illiterate than males. The corresponding population increase of females and males in urban population being 75% and 54% respectively. Only 2% of the urban population is graduate, 4.6% has higher secondary level of education and 16.9% have no examination to their credit. The remaining 12.9% of the urban population has passed either primary or middle school examination. In view of these statistical details one can easily predict that in years to come the job requirements of educational standard can not be improved.

The details regarding different level of education of rural and urban population of U.P. and its engagement in various occupations is dealt with in a later chapter in this study.

1. Directorate of Economics and Statistics, U.P. Report on Urban Employment, 1961-62.

CHAPTER III

PHYSICAL ENVIRONMENT OF UTTAR PRADESH

The notion of population always refers to a definite area and so do geographical and political entities. Therefore the economic activities of the population of Uttar Pradesh can not be appropriately described unless something is known about the physical and political geography of the region. Although the area of Uttar Pradesh has been changing from time to time but the boundaries of geographical and political U.P. have corresponded to a marked degree in the past some decades. To determine the occupation of the population it is essential that it must be shown in its natural environment adapting and developing the resources around it to increase human well being and comforts. The political boundaries and administrative divisions are not of much significance as they only enable us to label groups of people under territorial names such as Punjabi, Marathi, Gujrati, Bengali, Madrasi and so on.

With a view to have proper background for the study of economic activities of the population an attempt has been made to deal as to what lay within the physical boundaries and analyse its general outline to the extent they strain human behaviour. Thus in the present chapter an effort has been made to analyse the physical features of Uttar Pradesh from which population has wrested a living by exploiting its natural resources and fitted

itself to the varying conditions by adapting itself to the environment which includes main features of the area. The entire chapter has been conveniently sub-divided into following sections to make a systematic study :-

- (i) Profile of Uttar Pradesh
- (ii) Physiographic features of Uttar Pradesh
- (iii) Physiographic division of Uttar Pradesh
- (iv) Natural Resources of Uttar Pradesh
- (v) Natural resources and Human Activity in Uttar Pradesh.

I - Profile of Uttar Pradesh

Uttar Pradesh has always been considered the heart of India. In the Vedic period it was the centre of Aravavarta. In ancient period it was rightly called 'Madhyadesa' (Middle Country) for its location. In early British civilisation, out of sixteen states then existing, as many as seven were located in Uttar Pradesh. In the middle ages the Great Northern Indian Plain was known as Hindustan while the Punjab, Gujrat, Bengal and Bihar had their distinctive names. The areas comprised in them Uttar Pradesh had no other areas distinct from these and were completely identified with Hindustan. The area between Ganga and Yamuna was a land of great importance and was referred to as Doab.

During the 19th century the British power gradually extended towards West Bengal. In 1836 the possessions of East India Company in the present Uttar Pradesh and Delhi were combined under the name of North Western Province. The remaining portions of Jalaun, Hamirpur and Jhansi were acquired later in 1840-53. Oudh, which had remained out till then, was annexed in 1856. In 1858 the whole of North Western Province excluding the Delhi division was

formed into a single administrative territory and the capital transferred from Agra to Allahabad. In 1877 the combined province was known as North Western Provinces and Oudh. The name was changed in 1902 to the United Provinces of Agra and Oudh. In 1937 the name was shortened to United Provinces and few years later the capital was transferred to Lucknow from Allahabad. A couple of years later than political independence that is on January 12, 1950 these territories received their present name Uttar Pradesh absorbing numerous enclaves, and islands of neighbouring provinces. Uttar Pradesh acquired the status of a state within Indian Union on coming into force the Constitution of India on 26th January 1950. Inspite of numerous changes in nomenclature this state has been known by its popular abbreviation U.P. ever since 1902. Once the land of Rama, Krishna and Budha, to-day the State of Uttar Pradesh is a subtropical region fertile of soil but dependent on monsoon. It is not a political identity but rather a natural boarder of separated physical parts. What distinguishes Uttar Pradesh most in comparison to other states of India is the size of its population and lack of differentiations in its economic functioning.

II. Physiographic Features of Uttar Pradesh

(1) Location : Uttar Pradesh occupies a middle position on the Northern boarder of India. It lies between $23^{\circ}52'$ N and $31^{\circ}28'$ N. latitude and $77^{\circ}4'$ E. and $84^{\circ}38'$ E. longitudes. Geographical boundary of State in North is made by the Siwalik ranges and Northward lies the great mountainous zone of the Himalays. Southward the State meets the Northern spurs of the Vindhyan system which rise abruptly to a few hundred feet above the

adjoining areas in the districts of Jalaun, Hamirpur, Banda, Allahabad, Mirzapur and Benares.

On the North it has international frontier with Tibet (China) and Nepal. In the South it borders on Madhya Pradesh. In the North-West and West are Himachal Pradesh, the Punjab, Delhi and Rajasthan. The Eastern border is entirely with Bihar. The accompanying Map No. 1 facing this page shows the boundaries of Uttar Pradesh and its ^{Economic regions.} ~~position in India.~~

(11) Size : The total area of Uttar Pradesh stood at 294364 sq. km. (113654 sq. miles) in April 1971 as against 113409 sq. miles in 1951. This difference is simply due to revision of area figures by the Surveyor General of India and no other reasons. In matters of area, Uttar Pradesh is the fourth largest state in India, the other three states bigger in area than U.P. are Madhya Pradesh, Rajasthan and Maharashtra. In U.P. about 17 percent of country's population lives in only 9 percent of its area (U.P.).

The table¹ below gives the total area of U.P. during the period 1901 to 1961.

Table No. 3.1

TABLE SHOWING TOTAL AREA OF U.P. IN SQ. MILES (1901-61)

Years	Total area (in sq. miles)
1901	112,243
1911	112,346
1921	112,244
1931	112,191
1941	112,523
1951	113,409
1961	113,654
1971*	113,654

1. Census of India 1961, Vol. XV, Uttar Pradesh I-A, pp. 55-58.

* Census of U.P. 1971 Provisional Totals.

The percentage distribution of total area of Uttar Pradesh into its different economic regions stood as under in 1971.

Table No. 3.2

TABLE SHOWING REGIONWISE PERCENTAGE DISTRIBUTION OF AREA OF UTTAR PRADESH

Region	Percentage Distribution
1. Hill	17.4
2. Western	27.9
3. Central	15.6
4. Eastern	29.1
5. Bundelkhand	10.0
Total U.P.	100.0

(iii) Landforms (Structure and Rel ef) : In the matters of landform, U.P. has three distinct divisions - Hill Region in the North, Plain Region in the centre, and Plateau Region in the South. The Northern part of U.P. is made of Tertiary, Older sedimentary and granitic rocks. The middle part is made by the deposition of rivers Ganga, Yamuna and its tributaries. The rivers deposit the coarser boulders and gravels brought by them from their upper rocks. The Tarai region is covered with marshy tract, jungles and long grasses. The Southern part is an old erosion surface and it is carved out of the gneissic granite. Geologically this part is composed of fluvio - marine deposits of an arid region of a remote geological time uplifted and pene plaind many times. Low hills exists in this region here and there.

The three broad geological divisions of the State are

conterminous with the three broad physical divisions. The Vindhyan Hills and Plateau Division in the South is the oldest and the most, stable land mass. It has never been under water since the beginning of geological history. It is generally composed of horizontal rock-beds resting on firm foundation. Some of the oldest rocks of the earth's outer shell, i.e., Archean granites and gneiss are exposed in Bundelkhand. It is traversed by dyke and silts of coarse grained diorite. The Dharwarian and the Vindhyan are the two important system of rocks in this region. They contain rocks of much economic importance. Dharwarian rocks in the middle part of Mirzapur district are the source of important metallic minerals and the Vindhyan system spread over tahsils Kiraoli, Kheragarh of Agra district, Lalitpur of Jhansi district, Karwi and Mau of Banda district, Meja and Karchhana of Allahabad district, Mirzapur tehsil and Robertsganj of Mirzapur district and Chakia of Varanasi district provide some valuable high quality sandstones, shales and limestone. Rocks of lower Gondwana period in the south of the district Mirzapur are also of much economic use and contain coal deposits of large quantity. To the north of this stable block lies the youngest division comprising the vast alluvial plain. Geologically, it is the least interesting part of the country. The geological details of U.P. are shown on the accompanying Map No. 2.

(iv) Climate : The climate of a place may be defined as the annual mean of its weather. It is in the nature of weather conditions to change from day to day, from season to season. Climate is the sum total of all these changes which are considered in relation to the effects which they produce on human life. Preci-

precipitation (rain, sleet and snow) unprecipitated moisture in the atmosphere (fog, cloud or mist) wind and temperature are the principal factors of weather conditions and therefore of climate.

The entire state has tropical monsoon. It lies in the warm temperate zone, but great variations in climate occur on account of altitude.

Rainfall : The whole of Uttar Pradesh gets its major share of rain from the middle of June to middle of September from the Bay of Bengal monsoon. The map facing this page shows the annual normal rainfall. There is some rain in winter months also from North Westerly cyclones, but it is appreciable only in the North-Western districts. The Himalayan region has a cold climate except in the valleys. There is a great deal of snowfall from December to March. From June to September the rainfall is heavy, usually between 100 to 200 cm. (roughly 40" to 80"), though at some places it exceeds 200 cm. It gets less towards the west. In the southern part of the Himalayan region, the rainfall diminishes and the climate is healthier. The East plain has an annual rainfall 100 and 120 cm. The annual rainfall in the west and central plains is generally between 60 and 100 cm. except Mathura district and the western portion of Meerut district where it is less than 60 cm. It clearly shows that rainfall gets less in the Gangetic Plain towards the west and south.

Temperature : The temperature is not as important as rainfall from the occupational view point. In January the range is from 12.5° to 17.5°C, and in May from 27.5° to 32.5°C. with extremes of 45°C. or more. There is snowfall from December to

March and some mountain peaks remain covered with perpetual snow. In the plains, the average temperature varies from a minimum of about 3° - 4°C . April to June are hot months and a hot wind called Loo blows from the west. Hail-storms in February and March are not uncommon and quite often cause considerable damage to crops. Summer days of Bundelkhan Region are very hot on account of the bareness of the soil and its rocky nature, though the nights are very pleasant. Winter is not severe. The quarterly mean temperature of U.P. is shown on the accompanying Map No. 4.

III. Physiographic Divisions of U.P.

Physiographically Uttar Pradesh can be divided into three distinct regions, viz., the Himalayan Region in the North, the Gangetic Plain in the Centre and the Hills and Plateau in the South.

The Himalayan Region is mountainous having extensive and thick forest. It includes perpetually snow covered areas of Dehra Dun also. The region comprises Uttar Kashi, Chamoli, Pithoragarh, Garhwal, Tehri-Garhwal and Almora districts, Naini Tal tehsil of Naini Tal district and Chakrata and a part of Dehra Dun tehsil of Dehra Dun District. The region is made of tertiary, older sedimentary and granite rocks. The Himalayan ranges are composed of highly folded and faulted marine sedimentary rocks, metamorphosed with granite rocks. Some of the Himalayan peaks rise more than 7,000 meters above sea level e.g., Badrinath, Kamet, Trisul, Devangiri, and Nanda Devi. The perennial rivers of this region are the Yamuna, the Ganga, the Ramganga and the Ghaghra. This region is thinly populated and has no large towns, of course

it has a number of beautiful hill stations such as Chakrata, Mussoorie, Landowne, Naini Tal, Ranikhet and Almora. Dehra Dun is the only city with a population of more than one lakh. On account of the stony nature of the land, cultivation is possible only in river valley and terraced hill slopes. The chief crops of the area are rice and wheat. Naini Tal and Almora districts have some orchards while the sub-mountain area of Dehra Dun produces tea as well.

The next region is Alluvial Gangetic Plain which covers the major portion of Uttar Pradesh. Nowhere it is more than 300 metres above mean sea level except in the northern portion of Saharanpur district. In Ballia the height is only 58 metres above mean sea-level. The whole plain is a level featureless expanse unrelieved by the sight of a single hill. The Northern strip of this plain, which runs from Saharanpur to Deoria, is called the Bhabhar and Tarai and has distinctive features of its own. The Bhabhar skirts the Sivaliks mainly lying in Saharanpur, Bijnor, Garhwal, Naini Tal, Pilibhit and Gorakhpur districts where the rivers suddenly flatten out and deposit the coarser boulders and gravels brought by them from their upper reaches. This portion is generally covered with forests and long grasses. Originally the Tara was about 50 to 60 miles broad, but its width has been greatly diminished by settlements and reclamations. The Tara is now confined to a narrow strip parallel to the Bhabhar running through Saharanpur, Bijnor, Naini Tal, Rampur, Bareilly, Pilibhit, Kheri, Bharaich, Gonda, Basti, Gorakhpur and Deoria districts. The Bhabhar and the Tarai and areas contiguous thereto are sub-Himalayan in character. The trans - Yamuna portions of Agra and

Mathura districts differ slightly from the Gangetic Plain. They are characterised by many ravines and some red stone hillocks which mark the eastern termination of the Aravali hills. The slope of the Gangetic Plain is from north to south in the western portion and from north-west to south-west in the eastern portion.

This great plain is watered by the Yamuna, the Ganga and its northern tributaries, the Ramganga, the Gomti and the Ghaghra. The Yamuna also joins the Ganga at Allahabad (Prayag). Geologically this region is composed of pleistocene and recent rocks. It is damp and marshy and is covered by tall grasses and thick forests. The main crops of the Bhabhar and Tarai are wheat; rice and sugarcane. The region is most vital for the economy of the State and is densely populated. According to the census of 1961 it contained 14 out of 17 cities and town groups each having more than 1,00,000 population in the State. The whole of the Gangetic Plain outside the Bhabhar and Tara is alluvial and very fertile. About 70 percent of the area is cultivated. The chief crops are rice, wheat, millets, gram, barley and sugarcane. Sugarcane is the chief cash crop of the region and is grown all over, but most extensively in Saharanpur, Muzaffarnagar, Meerut, Bulandshahar, Bijnor, Moradabad, Kheri and Deoria districts. Tobacco, another cash crop, is grown mainly in Farrukhabad. As rainfall decreases towards the west, more and more wheat is cultivated.

The third part called Southern Region consists of the Vindhya Hills and Plateau and is a part of the Central Indian Plateau. It comprises four districts of Bundelkhand Division, i.e., Jhansi, Jalaun, Hamirpur and Banda, Meja and Karchhana

tahsils of Allahabad district, the whole of Mirzapur district south of the Ganga and Chakia tahsil of Varanasi district. This region forms a strip along the southern border of the State. It is bounded on the North by the Yamuna and the Ganga after its confluence with Yamuna. The general slope of Bundelkhand is to the north-east and it falls in broad steps from the foot of the Vindhyan scarp to the Yamuna. It presents an old erosion surface carved out of the gneissic granite. The height generally does not exceed 300 metres above mean sea-level, and rarely 450 metres. The portion of Bundelkhand in Uttar Pradesh is drained by the Betwa and the Ken which join the Yamuna from the south-west. The Vindhyachal range traverses the Karwi tahsil of Banda district. Mirzapur district is traversed by Mirzapur Hills and Kaimur Hills on the north of the sun, a southern tributary of the Ganga flowing from the west to the east through the south of Mirzapur and joining the Ganga near Patna in Bihar.

Geologically this part is composed of fluviomarine deposits of an arid region of a remote geological time, uplifted and pene-plained many times. Low Hills exist in this region here and there. The extreme south of Mirzapur district is physiographically a part of Bundelkhand. This region, again, is not densely populated. Only two cities viz., Jhansi and Mirzapur have a population of over one lakh each according to the 1971 census. The southern hills and the Plateau are not very suitable for agriculture due to configuration of the land. Only about 50 per cent of the area is under cultivation. The main crops of this region are Jowar, Gram and Wheat. The physiographic divisions of Uttar Pradesh are shown in the accompanying Map No. 5 facing this page.

IV. Natural Resources of Uttar Pradesh

The resources with which nature has blessed the human beings for exploitation to their well-being may be conveniently grouped into four. These are (i) soils, (ii) water, (iii) vegetation, (iv) animals and (v) minerals. An attempt has been made here to study the availability of these natural resources and their distribution in the physical divisions of Uttar Pradesh in the following pages:

(1) Soils : Soils play a dominant role in the agricultural economy of an area. To a great extent soils derive their chief characteristics from the geological foundation beneath them. Soils of three broad geological divisions of this State are therefore not similar to each other.

Forest and hill soils in the northern mountainous region are generally shaly and immature which vary in texture and depth. They are sandy, porous and devoid of humous. The valleys are covered with a thick layer of soils. Soils of Dehra Dun Valley are alluvial varying from loam to clay. Slopes have mostly stony soils. In the foothills the soils are transported from the Himalayas and deposited, and they are covered with thick forests. The details of varying soils are shown in the Map No. 6 facing this page.

In the Tarai strip, soils are highly leached and lack in fertility. The soils of Bhabhar and Tarai are usually referred to as foothill and swampy soils. They cover almost the whole of Saharanpur district, northern portion of Bijnor district, the

plain portion of Naini Tal district and a thin strip along the Nepal Border. The vast expanse of the Gangetic plain outside the Bhabhar and Tara is covered with alluvial soils. There are two types of older alluvial (Bangar) and newer alluvial (Khadar). These soils consist of loam or duma and clay or matiyar. Clay is suited for rice and loam is fertile and easy to work. Those of Meerut, Bulandshahar, Aligarh, Etah, Mainpuri, Etawah, Farrukhabad, Kanpur, Fatehpur, Hardoi, Unnao, Rae-Bareilly, Pratapgarh and Sultanpur are alkaline and impregnated with salts. The soils range from the very heavy Usar - towards the west to the alkaline reh in the more arid areas -- through the generally distributed duma i.e., loams to the sandy Bhur. The reasonably heavy matiyar clays of the Khadar are most suited for rice. In the depressed rice lands of Ballia, Ghazipur and Varanasi districts clay becomes dark in colour on account of organic matter and is called Karai. The soils of the lower Doab on the Yamuna side resemble the soils of Bundelkhand. As rainfall decreases towards the west, more and more irrigation is needed. Some black soil is found in districts of varanasi, Ghazipur and Ballia. Mixed red and black soils are found in Jhansi division in Bundelkhand. The soils of district Mirzapur, tahsils Karchhana and Meja of Allahabad district, and tahsil Chakia of Varanasi district are shallow red clays highly ferruginous and laterite.

(2) Water : The chief rivers of the State from west to east are the Yamuna, Ganga, Ramganga, Gomti and Ghaghara, all except the Gomti originating in the Himalayas. The Yamuna and the Ganga flow from the north-east to the south-west in their upper mountainous courses, from the north to the south in the western parts

of the State and thereafter from the north-west to the south-east joining at Allahabad (Prayaga).

The Yamuna is served by a number of tributaries. Its main tributaries are Chambal, Sind, Betwa and Ken which join it from the south after flowing through the southern hills and the Plateau Region. The Ramganga joins the Ganga near Kannauj. The Gomti rises in Pilibhit district and joins the Ganga beyond Varanasi. The Sarda and Rapti are the tributaries of the Ghaghara river. The Ghaghara flows from the north-west to the south-east in the north-eastern part of the State and joins the Ganga in the easternmost extremity of the State. Eventually all rivers flow into the Ganga. The Yamuna with its tributaries joins the Ganga at Allahabad, and the Ghaghara with all its accumulated waters near Ballia. These rivers have already been shown on the physiographic map of the State.

Besides these rivers, there are a few glacial lakes in Kumaun region of Uttar Pradesh such as Naini Tal lake, Bhimtal, Naukuchia-tal, Saat-tal and Malwatal. These are of no economic significance as they lie in valleys and it may not be economical to lift the water electrically to form canals on the plains for irrigation. These only entertain the tourists by providing boating and fun-making.

Agricultural activities are dependent on availability of water for irrigation. At places where well water is not available, rivers have been helpful in irrigating the land. At places canals have also been taken out from these rivers and even reservoirs constructed out of them to provide irrigation.

(3) Vegetation : Natural vegetation and cultivation are fully dependent on the fertility of land and the climate. Stony nature of the land is not suitable for cultivation. The river valleys and terraced hill slopes, wherever the culturable land is available it has been intensively used for cultivation. The Gangetic Plain of the State is very fertile and most suited for agriculture.

Some 35 thousand sq. km. or 11.9 per cent of the total area of the State is under forest. Originally, there was more of this area which was covered with forest but it has been gradually cleared off in the Sub-Himalayan and Plain regions for agriculture and settlement purposes. The soils of Himalayan are suited for producing the valuable trees (timber). Pines, birches, jumpers, silverfirs, etc., are available on high altitude in Uttar Kashi district. Below them the slopes are covered with temperate forests, such as Chir which completely takes over further down below 6,000 feet. The chief crops of the hilly region of the State are rice and wheat. The sub-mountainous area of Dehra Dun produces rice and tea. The districts of Naini Tal and Almora are well known for their orchards. The chief crops of the plain region are rice, wheat, sugarcane, millets, hairs, jowar, and maize, gram and Barley. Sugarcane is the chief cash crop of the State and is grown all over but most extensively in Saharanpur, Muzaffarnagar, Meerut, Bulandshahar, Bijnor, Moradabad, Kheri and Deoria districts. Another cash crop of the State is Tobacco, which is grown mainly in Farrukhabad. The southern region of the State is not well suited for agriculture on account of the configuration of land. The main crops are jowar, gram and wheat. In

Bundelkhand cultivated area is about one half of the total area. The main crops are jowar, gram and wheat. Mirzapur is more hilly than Bundelkhand and only one fourth of its area is cultivated. Nearly one-third is under forest. The main crop in Kharif is rice. Among rabi crops, barley is the most important followed by gram and wheat.

The table below gives the distribution of land area into forest and agricultural uses.¹

Table No. 3.3

TABLE SHOWING DISTRIBUTION OF LAND AREA OF U.P. INTO FORESTS AND AGRICULTURAL USES

Land Cultivation	Area in ('000) Hectares
1. Geographical area	29,430
2. Forests	3,776
3. Barren and unculturable and land put to non-agricultural uses	6,870
4. Fallow land	1,442
5. Net area sown	17,342
6. Total Irrigated area	6,577

(4) Animals : Animal wealth of any region is influenced by its natural environment. Human life is equally influenced by natural environment. The only difference between the two being that human life has perfectly adapted to all types of environment but animal life has yet not. Regional climate effects the physical form, structure and living characteristics of animals. It has already been stated earlier that landform, climatic conditions and natural vegetation of Uttar Pradesh differ from region to

1. Source : Bulletin of Agricultural Statistics of U.P.

region and so the species of animals.

The most common animals of Uttar Pradesh are domesticated cattles and buffaloes. Some of the best breeds of cattles and buffaloes are found in this state where in Harvana, Kakori, Giri, Nagor and Sahval varieties of cattle (cows and bulls) and Murrah and Jagrabadi buffaloes are available in plenty. Numerically also cattles and buffaloes are in largest number in Uttar Pradesh when compared with other States of India. The table¹ below displays comparative numerical strength of livestock and poultry in India and U.P.

Table No. 3.4

TABLE SHOWING NUMERICAL STRENGTH OF LIVESTOCKS AND PAULTRY IN U.P. AND INDIA IN 1961

Particulars	India (1961) ('000)	U.P. ((1961) ('000)	% of U.P. to India (1961)
Livestocks (Total)	336,527	49,404	14.68
1. Cattle	175,672	26,284	14.96
2. Sheep	40,263	2,662	6.12
3. Buffaloes	51,137	10,973	21.46
4. Goats	60,813	7,958	13.08
5. Horses & Ponies	1,351	296	21.90
6. Others	7,291	1,431	19.63
7. Poultry	116,914	3,254	2.78

Cattles and livestock are of vital importance for economic wellbeing of Uttar Pradesh. Numerous industries and

1. Techno Economic Survey of Uttar Pradesh, p. 252, Table No. 25.

occupations depend on animal wealth of this region, e.g., dairy farming, poultry farming, animal husbandry, meat breeding, meat culture (meat raising and processing), hides and skin industry, bristles industry, wool raising, piggery and many others which either process animal product or use the same as raw materials in the manufacture of their finished products.

Uttar Pradesh has always been predominantly vegetarian which gave social and economic importance to milk and milk products. Ghee making is more popular in Uttar Pradesh than milk separation for butter making. Aligarh is the only big centre for butter making in U.P. while Ghee markets are located in Khurja, Hathras, Aligarh, Shikohabad, Etawah and Ballia. Khurja has recently developed itself as Ghee export centre.

Leather industry is equally important in U.P. with Kanpur and Agra as big centres. Leather goods of Uttar Pradesh are famous and have markets not only in India but in neighbouring countries as well. Piggery provides lucrative economic prospects not only in pork and lard but also in its hair which is used for brush manufacture. Kanpur has developed as a big mand for assembly and assortment of pig hair according to its uses in brush making for different varieties of brushes such as those used for painting, polishing, floor-sweeping, cloth dusting and tooth brushing etc., etc. Brush industry of Uttar Pradesh of late has been facing serious competition from synthetic fibre. It has slower progress in comparison to wool raising which is more popular and economically more advantageous. Kanpur is a big wool-centre of Uttar Pradesh. Apart from use in mechanical textile

wool fibre manufacture is popular in most parts of the State on cottage and small scale during winter.

The foregoing description makes it very clear that cattle and animal wealth of Uttar Pradesh is important from the view point of economic engagement of its population and to make the State prosperous. Although it is very difficult to have a precise estimate about the percentage of active population engaged in occupations connected with cattle wealth yet it is certain that a sizeable number of people depend on this source of natural wealth. This is more so in rural areas where occupations depending on cattle can not be separated from agricultural activities.

Again most of units engaged in animal culture (from cattle breeding to processing of cattle products) are dis-organised and conducted on a small or cottage scale with the help of family members who perform other occupations also for their livelihood. As such it is not possible to distinguish between agricultural and non-agricultural occupations, and to make precise estimate of persons engaged in non-agricultural occupations. Organised units in this sector of economic engagement are few in Uttar Pradesh and do not employ any significant percentage of the total population. Lack of differentiation in economic functioning of rural population is also a big hinderence in making correct calculation of persons engaged in different economic occupations of different regions in Uttar Pradesh.

(5) Minerals : Uttar Pradesh is not a rich State of the country from the view point of minerals. Some gypsum is found at the foot of Himalayas. A little grafite, Kyanite and copper exist

in the Himalayan rocks. Small coal deposits have been discovered near Singrauli in the extreme south of Mirzapur. These minerals are not yet being exploited. Lime stone is quarried in Dehra Dun and in the Bundelkhand Uplands of the Vindhyan hill range. Lack of minerals has all along been a great handicap in the industrial development of this State.¹

There are eight north Himalayan districts and six southern districts where most of the minerals are found, viz., Uttar Kashi, Chamoli, Pithoragarh, Tehri-Garhwal, Garhwal, Almora, Naini Tal, Dehra Dun and Agra, Jhansi, Hamirpur, Banda, Allahabad and Mirzapur. Important minerals found in this State are as follows:-

Limestone : Sufficient reserves of limestone exist in the exposed portion of the limestone escarpment in the Ghaggar Valley near Markundi in Mirzapur district, in the Dehra Dun Mussoorie block, and in the Nilkanth area of Garhwal district. The limestone deposits near Markundi are being utilised in the manufacture of cement at the Government Cement Factory, Churk. The deposits of Dehra Dun - Mussoorie block are being extensively exploited by private parties for sugar and paper industries.

Dolomite : It is found in Dehra Dun, Tehri-Garhwal and Naini Tal districts. It is of exceptional purity and its resources are reported to be inexhaustible.

Magnetite : It is used, inter alia, as a refractory material in steel industry. It is found inter bedded with dolomite and steatite in Someshwar, Bageshwar and other areas in Almora district. It is being worked in the soap-stone factories of the area.

1. Census of India, Vol. XV U.P. Part I A, p. 52.

Coal : Extension of Singrauli coalfield into the Kota area of Mirzapur district accounts for the 0.5 million ton reserves of second and third grade coal in Uttar Pradesh. This coal can be utilized for developing power.

Iron - Ore : Small deposits of iron - ore reported from Kunwar area in Mirzapur district, several localities in Jhansi district and Ramgarh and Kaladhungi areas in Naini Tal district are poor in quality and their exploitation is uneconomic. The ore is found in Garhwal district and it is also uneconomical to work.

Copper and Lead Ores : The copper-lead ore belt running from the Kali river continues upto the western boundaries of Tehri Garhwal and Dehra Dun districts. Deposits have also been reported at Pindki in Tehri Garhwal, Gwar in Chamoli and Shishakhari in Pithoragarh district.

Gypsum : It is used for plaster of paris in cement industry, pottery industry and in chemical fertilizer industry. It has been found in a belt running from Mussoorie through Tehri-Garhwal to Lachhman Jhula in Garhwal district.

Glass Sand : Extensive deposits of white and friable quartzite suitable for glass manufacture occur in Allahabad, Varanasi and Banda districts. Shankargarh, Baragarh and Lohagarh on the Allahabad - Manikpur railway line are active glass - sand producing centres.

Besides these, there are many unimportant minerals found in the State. Vindhyan sand stone, a building material of high

quality, is being quarried extensively in the districts of Agra, Banda, Varanasi and Mirzapur. A potential reserve of nearly three million tons of non-plastic fire-clay has been explored in Mirzapur district which can be of use in refractories and ceramic industries.¹

From the geological view point the State can be conveniently sub-divided into three broad divisions which coincide with the three physical divisions already described.

V. Natural Resources & Human Activity in Uttar Pradesh

I have already described the physiographic features and climate of Uttar Pradesh elsewhere in this very chapter. And it can be stated on this basis that because of her agricultural economy Uttar Pradesh has always been predominantly rural. Beset for centuries by the dangers of political instability, e.g., organised banditry - confiscatory taxation, military looting and local tariff the agricultural population of the State has banded together for mutual protection in compact villages. The surrounding farm land has been cut into strips to equalise for the villagers the advantages of the surrounding terrain. Some land of course was left for common pasture and some for waste.

The tiny self sufficient rural villages persist even to-day. There has always been tendency to move closer to the land being tilled which saves time. It also permits more intensive cultivation and facilitates protection of crops particularly if the village is located on a hill or in some other unfavourable spot. Even when villagers move closer to the land they tend to do so

1. Source : Geological Survey of India (Quoted by the Planning Commission).

in compact hamlets. Uttar Pradesh is still a region of tiny and nearly self sufficient agricultural villages.

Man from the very beginning of human existence has tried to adapt to his natural environment and develop the resources around him to increase his wellbeing and comforts. Man is the only animal (with the possible exception of rat) which has succeeded in penetrating into 'the four corners' of the earth adapting himself to a greater or smaller degree, to different climates and natural environments which range through every degree from the Pole to Equator. More often than not, the control of natural forces is beyond his power. The most that he can do is to protect himself and his kind, so that, when natural disasters occur, the resulting loss of life and property is made as small as possible. The destructive movement of the nature may however, be observed studied and recorded as the chain of natural cause and effect pieced together to make attempts for future forecasting. With the possibility of fore warning, measures of defense appropriate to the threatened disaster can be taken.

It is correct to say that man cannot stop physical occurrence of natural catastrophy such as earth quake, fire, avalanche, rain, wind and storm yet he can devise appropriate measures to protect himself and exploit the nature to his advantage to develop the culture of his region. It has become evidently clear from the foregoing that nature plays an important role in determining the economic activities of mankind in the region of his living. Exploitation of natural resources becomes the basis for development of different industries. Engagement in land utilisation, agriculture, vegetation, forestry, fishery, hunting, mines and

minerals and indirectly all economic occupations are the direct results of availability of physical and natural resources.

Environment in every region influences the human activity in a big way. There cannot be a single activity of the man in which environment may not be either a helpful instrument or even a hindrance. The geometrical position affects the climate, vegetation and human life of the region. Regions which spread under North-South have different climate and consequently different agricultural crops and different economic activity in different parts. Uttar Pradesh is also one of such regions which has a variety of agricultural crops and human economic activities based on availability of natural resources and climate. Needless to say that climate directly affects food supplies, occupations and culture. Industries and commerce generally prosper in plains and are thus influenced by landforms and relief characteristics of the region. It is for this very reason that 98% of the world's population resides in plains.

The climate, temperature and rainfall differ from region to region in U.P. and different physical environments influence human activity differently. Every region has its own local importance yet many regions scattered farther away from others bear similar environmental characteristics and have similar human activities also. It is not essential that region bearing similar landform, climate, vegetation, soil and other physical characteristics must have similar human activity also.

In the domain of man and nature, the upper hand is always that of nature but no climate is absolutely intolerable to him

as man ranks among the most adaptable organic beings on the earth. The climate affects food habits, clothing, house, land culture (land culture means agriculture, fishing, hunting and forestry), trade, commerce, colonisation, human health and energy and finally civilization.

The necessities of human beings are provided by vegetation in the form of resources for economic, social and cultural development of the society. In brief, Vegetation provides food through agriculture, fibre for clothing, housing and building material through wood, log, bamboo and stone raw material for manufacturing industries like pulp, rubber, varnish, fuel for cooking material, for transportation equipments, for bridges, communications, forest wealth, grass for stock-raising, shrubs and roots for medicines, flowers and other decoration materials, all of which are the produce of vegetation and affect economic activities of the area. Thus vegetation reflects the entire composite physical environment and help the human race in utilization of land to his economic advantage.

The nature from its own side has created a balance between living beings and vegetation but the man has always disturbed this balance to his economic advantage by deforestation, pasturing, extension of cultivable land and colonisation of forest areas. Human action which disturbs the natural balance results in landslide, soil-erosion, soil-depletion and flood. Indirectly these resultants also affect men's economic activities. Human beings have thus adjusted with Vegetation both directly and indirectly. Directly man is engaged in lumbering, pasturing, hunting and gathering forest produce. Indirectly he is engaged in agriculture,

industries, trade, and silviculture (reforestation).

The above description of the influence of natural environment on human activities gives us a clear and comprehensive idea about human activities in Uttar Pradesh. The occupations related to natural resources and based on their exploitation are dealt with later in this study.

CHAPTER IV

SOCIAL ENVIRONMENT - CASTE, RACE AND RELIGION

In the context of this study the classification of economic activity of the population into different occupations is not so important as the study of caste-composition of the various occupations. How far their traditional occupations are being abandoned by the respective castes as many of these are ceasing to be village occupations or are becoming outmoded or uneconomic and to what extent the resulting dislocation is being adequately and properly adjusted are questions of vital importance to caste society which is in transition and is expected to transform itself into a kind of class or even classless society. As will be seen later there is not much difference between caste and race. Then the religion -- it is dominated by caste. The influence of caste is greatest on the practice of religion and code of life. The diversification of economic activities and practice of religion are very closely correlated. The principal sanction which attached to the branch of morality even in pre-1950 period has been the fear of caste penalties rather than the dread of Divine punishment -- this view could be supported by numerous evidences from the society.

In this State of Uttar Pradesh the force of religion and caste supremacy has been so vital in the past that almost any

moral law could be broken to save the life of a Brahman or a cow. Keeping in view the above description an effort has been made in this chapter to analyse the caste and religion details of U.P. in the light of available census data. To make a systematic study the entire chapter has been divided into following convenient sub-sections -- (i) The caste system; (ii) The caste and occupation; (iii) Religion and occupation; (iv) The caste structure and (v) Scheduled Castes and Scheduled Tribes of Uttar Pradesh and (vi) Future of Caste in Uttar Pradesh.

I - The Caste System

The caste may be defined as the largest group based on community of occupations and tribe as the greatest group based on real or fictitious community of descent or upon common occupation of territory. Within the caste we find sub-castes and within the sub-castes we find sections.

Manu the greatest law giver makes no distinction between caste and race except into Arya and Dasyus. The Sudras in some cases may be supposed to be a mixed caste. Some castes have developed in due course of time under different names of Khassa, Dravid, Yavana, Saka (Indo-Seythian), Pahalva (Persian) and China (Chinese). Some of these races are definitely not Indian in their origin.

Writing on the census of Punjab in 1881 Mr. Ibbetson¹ traced the origin of castes from the tribal divisions common to all primitive societies and formation of trade guilds based on hereditary occupations followed by an exaltation of the priestly

1. Census of U.P., 1901, p. 237.

Office. Mr. Nesfield¹ in an account of castes in U.P. says that occupation is the only basis of caste as they exist at the present day and social precedence is formed exactly in accordance with the different stages of evolution of various occupations from the stone age downwards. The foreign trace of Aryas which came to India some 4000 years back has been completely lost by inter marriage in some parts of Rajasthan. Dr. Oppert² maintains that the original inhabitants of India with the exception of a small minority of foreign immigrants belong all to one and the same race, branches of which are spread over the continents of Asia and Europe and which is known as "Finish - Ugrian or Jusanian". This race was mountaineer which was later sub-divided into Gaur and Dravid. Bears of eastern districts are Gaur while Kol, Korwas of Mirzapur are Dravids. He further maintains that Brahmins have come from Egypt because they are called M_sra which is Arabic name of Egypt.

Definition of Caste : The word caste has two vernacular terms with different meaning. The first (in Northern India) is Zat (breed) or quam (tribe). The second is biradri or bhaiband (brotherhood). The Zat is caste as a whole, the biradri is the group of brothers of the same caste who live in a particular neighbourhood and act together for caste purposes. Blunt³ says that 'the biradri, quantitatively considered is a mere fraction of the Zat, qualitatively in action. Historically the caste is

1. Census of U.P., 1901, p. 237.

2. The Original Inhabitants of India.

3. Blunt, E.A.H.- 'The caste in Northern India' quoted by Kingsley David - 'Population of India and Pakistan'.

one of the oldest, most peculiar and most fundamental features of Hindu society. Caste control over individuals' behaviour is still strong throughout the larger part of the sub-continent and its influence on economic and political matter is still great. An eminent authority¹ defines caste as 'an endogamous group or collection of such groups bearing a common name and having the same traditional occupation who are so much linked together by these and other ties, such as the tradition of a common origin and the possession of the same tutelary (acting as a guardian) deity and the same social status, ceremonial observances and family priests, that they regarded themselves and are regarded by others as forming a single homogeneous community.

Origin of Caste System : Although Indian literature has altogether different theory about origin of the caste system, Senart² maintains that current native theory professes to be based on ancient literature of the country. He further says that the reference in Rigveda to the origin of four so called castes is almost unanimously rejected as a later interpolation. The Veda says that from Ved e Hymn there were only two classes of society (i) Priest and (ii) Warriors or Kings and Aryan population was divided into tribes which were composed of clans - the members of each of which were supposed to be related and clans were sub-divided into families. The family is even now represented by Kul and the clan in the Gotra though the movements of population have dislocated the original construction of the tribe. It can also be stated

1. Census Report of U.P., 1931, p. 541.

2. 'Les Castes dans L'Inde (Census of U.P., 1931, p. 238).

that the castes in the present sense did not exist upto the beginning of the Christian era but there was a fourfold division of society chiefly based on occupation. It is also maintained that origin of castes is given in detail in the later Sanskrit works say Puran but these are of doubtful nature. There are no original text on castes in which the process of manufacture and manipulation continues even to-day. The family, gotra and castes of India correspond closely to the gens, curia and tribe of the Latins and family, phratry and phyle of the Greeks. It is presumed that early villages probably consisted of a number of persons closely related. In U.S.S.R. even now certain villages present the phenomenon of a common occupation followed by inhabitants of each. Thus the common relationships lead to adoption of a common occupation and not the contrary. Earlier occupations were mainly pastoral and agricultural and that their multiplication is rather much later.

Earlier texts maintain that Indo-Aryan culture is most important and the earliest factor for making the caste system in India. The Dravidian culture is the only other culture that makes up castes but this culture had already been largely influenced by the Indo-Aryan tradition. The Brachmanic variety of this Indo-Aryan civilisation was firstly developed in the Gangetic Plain. Thus the Gangetic Plain is the original region of U.P. where caste system originated. In pre-historic period, i.e., about 5000 B.C. the fore-father of all these Indo-Aryans seem to have occupied one fairly defined region and to have been in close cultural contact with one another. For same reason or another they dispersed from their centre of characterisation,

different groups started in different directions and followed varying adventures. Their languages diverged from each other yet they retained sufficient common structure and content to enable the 19th and 20th century philologists to group them together and reconstruct the primitive speech which must have been the stock in trade of their ancestors in their centre of characterisation. One of these branches which reached India about 2500 B.C. came to be known as Indo-Aryans.

In the Vedic and post Vedic era when Aryans came to India they must have had among them atleast three well defined classes - the Brahman, the Kashatriya and the Vaisiya. At that time Sudras formed the lowest class in society. In the earlier Indian history Aryans enjoined that Sudras shall not practise the religious worship developed by them. The three first classes were first enjoined not to marry a Sudra female and any attempt on the part of a Sudra to marry a Brahman female was considered the greatest sacrilege against society. The Sudra class formed part of the Indian society and as mentioned earlier as one of the four main castes. Thus in the Vedic period the Arya and the Dasa was replaced by Brahmanic classification of the 'dwijat' and the 'ekijati' stratification.

Some of the physical movements also affected the caste-system. For example, the Brahmin of Uttar Pradesh is even now physically more akin to the Khatris, a higher caste and even the Chuhra a low caste of the Punjab, like any caste of the Uttar Pradesh except the Khatris, the next highest to the Brahman caste. Thus the highest caste of Uttar Pradesh has greater physical

affinity (close relationship) even in the low castes within region are more related to one another than to similar castes outside the region.

Thus describing the origin of the caste system it can be stated that caste is a Brahmanic child of the Indo-Aryan culture, created in the land of the Ganga and the Yamuna and thence transplanted to other parts of the country.

Features of The Caste System : The caste is not the result of varying occupational system but it is made with divergent groups with certain characteristics and with varying circles of social intercourse. According to Baines¹ Ubiquity and strangeness are the two main features of the caste system. Among other features of the caste system the following few are more important:

(i) Each endogamous group (of marrying with same tribe) or collection of groups falls with other into a class with certain characteristics.

(ii) Each caste forms part of an element in the system which is associated with certain ideas and beliefs; and

(iii) Within this system there are levels or classes which again are associated with certain ideas or beliefs. Therefore the caste indicates that a marriage should be contracted within the same tribe and having the same traditional occupation.

Caste Varieties : The most important characteristics of the castes found in Uttar Pradesh is their division into innumerable groups principally distinguished by the fact that they are endogamous but that a number of social relations and functions depend

1. Ghurya, G.S. - Caste, Class and Occupation, p. 1.

on the same division. Endogamous groups are again divided into exogamous groups which sometimes prevent the phenomenon of inogamy and hypergamy and in one or two cases the chief divisions of a caste are into exogamous groups which are strictly hypergamous. Lastly these groups whether endogamous or exogamous are not rigid, strictness or laxity in regard to social relations and functions attached or the adoption of new religious beliefs may raise or lower a given group in popular estimation or may cause the formation of new castes in the widest sense of the term. Though they are composed of groups recruited from pre-existing castes which are recognised as quite distinct.

A common Hindu believes in four castes -- Brahmin (The Head), Kashtriya (Arm), Vaish (Thigh) and Sudra (The Feet) Manu does not mention Sudra but in its place he mentions Vratya (other castes) i.e., descendants of individuals of the three principal castes who have omitted to perform the prescribed ceremonies. Then there are also mixed castes produced by adultery on the part of three principal castes or by marriage between those who ought not to marry or by men deserting their respective occupations. A list of all such castes is given by Manu. In the present society neglect of religious ceremonies does not outcaste any member.

The more popular castes in Uttar Pradesh are as under:

1. Brahmin (Priest)
2. Castes allied to Brahmin but not pujniya
3. Kashtriya or Rajput (Fighting caste)
4. Castes allied to Kashtriya.
5. Vaish or Baniya (Trading community).

6. Castes allied to Baniya.
7. Mahajan¹, Halwai², Teli³, Sonar⁴.
8. Castes from whom some of the twice born would take pakki⁵
and all would take water.
9. Castes from whose hands some of the twice born would take
water while others would not.
10. Castes from whom others do not accept water but they are
not untouchable.
11. Castes that are untouchable but do not eat beef.
12. Lowest castes who eat beef.
13. Miscellaneous castes.

Nature of Caste Groups : There are numerous groups in the Hindu caste society with different names which are derived from the principal professions of their own caste, e.g., Brahm n means one who recites the prayer. The group which are engaged in trade and commerce are called Vanik or Ban ya. The Jat of the Punjab means cultivator but in Northern India the name of a cultivating caste is Kisan. The cattle breeding group is called Gauta which is derived from a Sanskrit word cow. Similarly Soni or Sonar is the name of goldsmith caste, Lohar or Sutar is blacksmith, Teli or 'Jili', the oil presser, Kumhar the potter, Barber the hair dresser, Chamar the leather working caste etc., etc. All these different caste names are derived from their own occupations.

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1. Moneylender.
 2. Sweetseller.
 3. Vilereller.
 4. Goldsmith.
 5. Food cooked with butter only.

Similarly there are some other groups of castes which are affiliated with religious movements such as the Sadhus, the Jogis, the Gosains and the Mambh:os etc. Then few caste names are associated with code of living such as Musahra the mouse eater is the name of a low aboriginal caste of Uttar Pradesh. Quite a few sub-castes bear the name of some ancient city or locality. Brahmin sub-caste Kanauj a from Kanauj, Mithil from Mithila, Saraswat is named after the river Saraswati and Gaur is named after a large part of Northern India. This description of the caste system classifies the various names and the nature of different castes.

Caste System Outside India : The caste is not peculiar to India alone rather it is prevalent in numerous other countries also under different names and forms. It may be rather too optimistic to include in this study the caste systems of all the countries of the world yet I have made an attempt to study the caste elements of some important countries such as Egypt, Western Asia, China, Japan, America, Rome and the tribal Europe.

In Egypt during the Pyramid age there were three principal classes -- the land owners, serfs and slaves. But in the eighteenth century these were regrouped into four classes -- soldiers, priests, craftsmen and the serfs. In Egypt people had no freedom of occupation. Occupational restrictions applied to all lower classes of people who had to join hereditary occupations. In middle class profession, i.e., those of priests and warriors there was no restriction and one could join any of the two occupations. In the same period of history in England everybody had complete freedom to shift from one occupation to another

according to his choice. In the Western Asia, during the period of Iranian civilization, i.e., before 700 B.C. there were initially three principal classes -- priests, warriors and husbandmen to which a fourth class of artisans was added later. According to the description given in Shahnama these four classes were made by Yima in which priests were compared as head of a man, the warriors his hands, the husbandmen his stomach and the artisans as his feet. A similar comparison of the four castes of India has been given by Manu.

In China the society was divided into four orders, i.e., gentlemen, agriculturists, artisans and merchants. Gentlemen were members of the governing class and civil service to which admission depended on literary tests and any one could try his intelligence. Most of other occupations were customarily hereditary.¹ In Japan during the military age the society was divided in five groups -- hereditary soldiers, the samurai, farmers, artisans and traders. After the Revolution the Japanese society was classified into three groups which continue even to-day. These groups are the nobility, the gentry and the common people who include the farmers, artisans and merchants.

In Mexico the population was divided into three well-defined groups -- the pure Spaniards, the half-breed Spaniards and the pure Indians. In 1921 these formed 19%, 43% and 38% respectively of the total population which was changed to 17%, 54% and 29% respectively in 1946. In other Asian and South Asian countries population was generally divided into three main classes --

1. Caste, Creed and Occupation, p. 142. *Ibid*

upper, middle and the slaves. Even in ancient Rome the population was divided into three groups -- the patricians (of high birth), the plebeians (of low birth) and the slaves. The first two classes comprised all the freemen. In Anglo-Saxon England the population was divided into three classes -- the noblemen, the common freemen and the slaves. The later addition of a fourth class 'Laet' enjoyed the intermediate position between freemen and slaves.

Thus during the middle ages traders and craftsmen were highly organised all over Europe and they enjoyed great freedom about the choice of a trade or a craft.

II - The Caste and Occupation

There has been no dearth of historical evidence regarding castes following different occupations and of members of the same caste following different occupations. While making an analytical study of caste - occupation relationship two important questions automatically emerge which are :

(i) Whether the origin of the institution of caste has been difference of occupation or not, and

(ii) Whether the caste has preserved upto the present day any distinction of race.

Examining the validity or otherwise the above referred two questions it can be stated that from the very early times occupations have been prescribed Varna wise and Zati or castewise. Varnawise specification of occupations is believed to be inherent in the nature of alleged Divine Origin of the institution.

Different valuation of occupation current in a society has been a mark of not only all civilised societies but also of many primitive or even non-literate ones. Even in the modern societies of the west like the English and the American this valuation has remained a characteristic feature of their social structure and social psychology. In the 19th century caste society of India there was a fairly accepted scheme of social procedure and hierarchy of occupations and groups of occupations.

There are old occupations like trade or commerce and some crafts whose ramified recruitment from different castes would be making for more hereditary society than the past or the present one. Then there are newer occupations requiring high intelligence, long and complex training on which in the community of nations the respect that any nation can command depends and will rest even more markedly in the near future. What castes naturally tend to man the key and crucial occupations is a question not less important than the mere flux of occupational mobility.

Herbert Risley¹ was the first to study caste occupation relationship in the census of 1901. Though his study covered the then entire British India but did not meet with much success. His conclusions revealed the castewise composition of occupations but not the relative strength of different castes. In a caste-occupation study it is more important to know the proportion of main castes entering into various specific occupations. Hindus other than Brahmins have also contributed a fair percentage of their members to man the higher professions. Mr. Chapeker² wrote

1. Census of U.P., 1901, p. 266.

2. Ibid., p. 281.

that "every community is preferring service to its traditional work." Even the non-skilled work of gardening has not remained confined to Malis.

III - Religion and Occupation

Religion is still taken very seriously in the region of Uttar Pradesh and it plays an important role in the life of the people. Whether Muslim, Hindu, Sikh or Jain, religion in this region is not limited to the vange and ultimate affairs of life, not confined to one hour per week but is practised every day and with minute and literal details. People live in a sacred society where both means and ends are viewed in a religious light in which ritual and magic are regarded as efficient. Thus the scientific, empirical and business like approach to the world is subordinated to a multiplicity of specific and relatively rigid beliefs and rituals. The result is a strong resistance to technological change. If it is a question of agriculture, technological advance is restricted to caste restrictions on the type of labour by dietary taboos. In a scheme of Rural Manpower Utilisation launched by U.P. Government under PL 480 to remove unemployment during the draught period of 1966 the Brahmins preferred to beg rather than to earn living by doing earth work.

From a numerical view point only two religions important in Uttar Pradesh are Hinduism and Melan. In 1941 till which time census authorities collected details of religious groups the above referred two groups formed 94% of the total population of this State. Hindus formed 70%, Muslims 24%, Christians 2%,

Tribal religions (more than one hundred groups) 2% and all other religions together (Sikhs, Jains, Budhists, Parsi and Jewish) formed the remaining 2% of the total population. This classification has not remained uniform from census to census and hence no comparison of data is ever possible. The table below shows the percentage distribution of the population of Uttar Pradesh by major religious groups in different census years.

Table No. 4.1

TABLE SHOWING PERCENTAGE DISTRIBUTION OF POPULATION OF U.P. BY MAJOR RELIGIOUS GROUPS

Religions	Percentage of Population in				
	1881	1891	1901	1911	1921
Hindus	86.27	86.0	85.2	85.0	85.0
Muslims	13.43	13.50	14.0	14.0	14.0
Christians	0.11	0.1	0.2	0.5	0.5
Others	0.19	0.4	0.6	0.5	0.5
Total	100.00	100.0	100.0	100.0	100.0

The theoretical Hinduism implies a decision on certain doctrines which it is almost impossible for an uneducated person to understand. Since more than 90% Hindus were almost illiterate in the beginning of this century (1901), they could not follow their religion which is written in Sanskrit. The distribution of religious groups of the population on the basis of literacy has been as under during the census years of 1921 and 1931 for which statistical details are available;

Table No. 4.2

TABLE SHOWING LITERACY RATE AMONG MAJOR RELIGIOUS GROUPS

Religious Groups	Literate person %o above 5 years		
	1931	1921	1911
All Religions	55	42	36
Hindu Brahmins	51	39	29
Aryas	200	229	240
Jains	380	345	220
Muslims	59	43	28
Christians	289	269	410

In the census of 1911 it was observed that every Christian above 15 years was literate. In the year 1901 in Muslims the highest literacy was found in Jhansi followed by Lucknow, Allahabad. Among females Allahabad had highest literacy rates.

An analysis of the religious structure of different European, American and Asian countries discloses that non-Christian countries or countries with lesser Christian population are generally under-developed and provide lesser diversification of employment opportunities. Uttar Pradesh is such a region in India which has only insignificant percentage of population following christianity as its religion. Even among Christian countries only the protestant ones are characterised by a high standard of industrial development, i.e., by a high per capita monetary income. Among other countries those with communist ideology are more developed than those of others -- U.S.S.R. as compared to Greece and Pakistan. Economic

development and so diversification of employment opportunities has always been accompanied by a decrease¹ in religious feelings and U.P. has always remained in the grip of religion.

The most outstanding feature of the developed modern countries is that almost all of them except Japan are Christian countries. Japan itself owing to the growth of Christianity is remarkably different from other Asian countries. Religion does effect the deep psychological process as well as the events of social living and in particular the economic life. Economic life is generally linked to religious practices. The industrialisation which creates more diversification of employment opportunities involves the neglect of religious values and the same is true for the process of flow to cities. It is not the city itself which kills religious spirits but living in the city without a particular preparation to it.

Taking the State of Uttar Pradesh as a whole six major religious communities lived here as per records of 1961 census. These are Hindus, Muslim, Sikhs, Jains, Christians and Budhists. The proportion of these religions to total population in 1961 has been Hindus 84.66%, Muslims 14.63%, Sikhs 0.38%, Jains 0.17%, Christians 0.14% and Buddhists 0.02%. Hindus and Muslims formed the two main communities of the State which together formed 99.29% of the State's total population. As already stated earlier the proportion of Hindus has been slowly but steadily going down since long except during the decade 1941 - 1951 when the trend was temporarily reversed by the effects of the partition. The propor-

1. Eric Roll - History of Economic Thought (Turin), pp. 16-18.

tion of Muslims has all along shown a continuous rise except during the afore-mentioned period. During the decade 1951-1961 the proportion of Hindus and Christians have declined while that of other religions has registered an upward trend.

IV - The Caste Structure

It may be mentioned here that all the literary and analytical account of the important aspects of castes centres round the four orders in society viz., Brahmins, Kshatras, Vaisya and Sudras and not the multifarious groups which are the present day castes. All these four orders followed their specific occupations which were hereditary. Besides there were some other occupations like blacksmith, leather-worker, barber, physician, goldsmith and merchant etc., about which it can not be stressed with certainty as to which of these occupations were comprised in any of these four orders.

The detailed statistics regarding occupations of castes are not available to allow census to census comparison and forecast a definite trend. Yet some statistics of previous censuses are available which prove beyond doubt that some occupations are definitely hereditary and are followed by specific castes. Some figures of literacy by caste go to prove that certain castes are more literate than others and hence perform only such activities which require literacy and cannot be performed by non-literate or less literate castes. It is on this basis that all the castes of Uttar Pradesh were divided into (i) Advanced castes with 50% or more of its members as literate, (ii) Intermediate castes with literacy percentage between 10 and 49 and

(iii) Backward castes having literacy percentage for its members below 10%. Accordingly Kayasthas with 70% males and 19% females as literates have been regarded as advanced caste of U.P. followed by Vaishyas (38% Males as literate), Brahmins and Bhumihars in intermediate bracket while Julha, Bharbhujia, Mochi, Darzi, Lohar, Barhai and all others in the backward castes.

The following figures explain that even now some castes follow their traditional occupations.

Table No. 4.3

TABLE SHOWING TRADITIONAL OCCUPATION BY CASTES

Kind of Industry	Caste concerned	% of total caste's following in industry
1. Goldsmiths and Jewellers	Sonar	87
2. Cultivation and land holdings	Bhumihar, Kori, Kurmi	84
3. Washermen	Dhobi	71
4. Barber (Hair Dresser)	Nai	70
5. Grain Parcher	Bharbhujia	70

Although we do not have current statistics to compare caste following of different occupations but the system has persisted in India for the last 3000 years following a trend in the direction of a more rigid, more unequal and more stratified order which reached its peak more or less at the same time when feudal system reached its peak in Europe.

V - Scheduled Castes and Scheduled Tribes of

Uttar Pradesh

[There are no scheduled tribes in U.P.] The census report of 1961 provides population of each scheduled caste, its distribution by age, marital status, educational level, religion and economic activity along with household cultivation. Such a detailed information was never provided by earlier census reports.

Article 46 of the Indian Constitution states that "the State shall promote with special care the educational and economic interests of the weaker sections of the people and in particular of the Scheduled castes and scheduled tribes and shall protect them from social injustice and all forms of exploitation."

According to Article 341 the President of Indian Republic may "with respect to any State or Union Territory and where it is a State after consultation with the Governor thereof by public notification, specify the castes, races or tribes or parts or groups within castes, races or tribes which shall for the purposes of the constitution be deemed to be scheduled castes in relation to that State or Union Territory as the case may be."

The Scheduled Castes and Scheduled Tribes have been last notified under the Government of India, Ministry of Home Affairs Notification No. SRO 2477A dated 29th October 1956 issued under Article 341(1) and 342(2) of the Constitution. This schedule includes the following 64 castes throughout the State of U.P.

Table No. 4.4

TABLE SHOWING POPULATION OF SCHEDULED CASTES IN U.P. IN 1961

Castes	Population	Castes	Population
1. Agaria	10261	25. Chero	12779
2. Badi	1724	26. Dahgar	3754
3. Badhik	9972	27. Dhangar	8705
4. Bahelia	27629	28. Dhanuk	224055
5. Baiga	3874	29. Dhanukan	41662
6. Baiswar	5774	30. Dhobi	888466
7. Bajania	671	31. Dom	41388
8. Bajgi	2165	32. Domar	11081
9. Balapar	8720	33. Dusadh	93021
10. Baldi	902	34. Gharami	3
11. Balmiki	558389	35. Ghana	1742
12. Bangali	1388	36. Gual	314
13. Banmanus	8848	37. Haleva	2466
14. Bomsphor	14853	38. Hari	2907
15. Banwar	6303	39. Hela	21051
16. Baor	58805	40. Kalabaz	1955
17. Barwaria	2905	41. Kanjar	31335
18. Beldar	59247	42. Kaparia	3147
19. Beriya	14949	43. Karwal	36286
20. Bhandari	7903	44. Khairah	901
21. Bhuiya	3188	45. Kharot	275
22. Bhujiar	26766	46. Kharwar	30366
23. Boria	1175	47. Khatik	305326
24. Chamar, Dhunia, Jhuma	8693327	48. Kol	126288

(Continued)

Table No. 4.4 (continued)

Castes	Population	Castes	Population
49. Korwa	169712	57. Pasi or Jarmali	2221136
50. Lalbegi	11316	58. Patari	917
51. Majhwar	69133	59. Rawat	17577
52. Mazabi	255	60. Sabariya	11787
53. Musabar	88119	61. Sanaurhiya	40
54. Nat	57155	62. Sansiya	4896
55. Pankha	7703	63. Shilpkar	465870
56. Perchiya	583	64. Turaiha	2071

Variation in Distribution of Scheduled Castes 1951-61

The scheduled castes of 1951 differ to a slight extent from those of 1961 as follows:-

1. 'Jarmali' has been added as a synonym to 'Pasi' in 1961.
2. Four more castes viz., 'Balai', 'Khat k', 'Mazharir' and 'Musabar' has since been added to the list as it existed in 1951 and
3. 'Bhoksa' has now been deleted from the list.

The total population of scheduled castes in 1951 was 11,855,341 which rose to 15,399,881 showing an increase of 20.90% over 1951. The main reason for such a large increase is the changes made in the list of scheduled castes and scheduled tribes under modification order of 1956. Including these changes the population of scheduled castes according to 1951 census was estimated at 13,100,398. Compared to the estimated population according to the scheduled castes and scheduled tribes lists

(modification) order 1956 the 1961 census shows an increase of 17.55% against the growth rate of 16.66% of the general population of U.P. during the decade 1951-1961.

1. Size and Distribution of Scheduled Caste Population

The population of scheduled castes in this State stood at 15,399,881 in 1961 which formed 20.88% of the total population of Uttar Pradesh as against 14.67% scheduled caste population for the country as a whole. Divided into different economic regions the scheduled caste population stood as under:-

Table No. 4.5

TABLE SHOWING THE DISTRIBUTION OF SCHEDULED CASTE POPULATION AS A PERCENTAGE OF TOTAL POPULATION IN U.P. in 1961.

Region	Total population ('000)	Scheduled caste population ('000)	% of S.C. population to total population
1. Hill	3106	930	30.0
2. Western	25670	4600	19.7
3. Central	13189	3400	26.8
4. Eastern	28282	5700	20.5
5. Bundelkhand	3499	770	25.1
Total (U.P.)	73746	15400	21.0

It appears from the above table that though scheduled castes form more than one fifth of the total population (one out of every 20 is scheduled caste in U.P.) the largest concentration is in the Hill region (30.0%) followed by Central region (26.8%), Bundelkhand 25.1%, Eastern region 20.5% and the Western region has the lowest percentage of 19.7%. These

figures are displayed in the Map No. 7 facing this page.

The State of Uttar Pradesh ranks first among the States in India by size of the scheduled caste population and also by the percentage. In Maharashtra the percentage of scheduled caste population is the lowest (5.63). The State of Punjab is in close vicinity of Uttar Pradesh (20.38%) followed by West Bengal where in scheduled castes population forms 19.73% of the total population.

2. Rural Urban distribution of Scheduled Caste Population

Out of total population of scheduled caste 14300 (000) or say 93.07% were found in rural areas and only 1100 (000) or 6.93% were in urban areas against 87% and 13% of the general population in respective areas. This shows that scheduled caste population is even more rural than general population. The regional distribution of scheduled castes into rural and urban areas of U.P. was as follows in the year 1961.

Table No. 4.6

TABLE SHOWING THE DISTRIBUTION OF SCHEDULED CASTES POPULATION OF 1961 IN RURAL AND URBAN AREAS

Region	Total S.C. population (000)	S.C. Rural population ('000)	S.C. urban population ('000)	% of urban S.C. popu- lation to total population
1. Hill	930	900	30	3.2
2. Western	4600	4040	560	12.2
3. Central	3400	3150	250	7.3
4. Eastern	5700	5480	220	3.9
5. Bundelkhand	770	680	90	11.7
Total (U.P.)	15400	14250	1150	6.93

It is clear from the above table that among the different regions of Uttar Pradesh, Hill region is most rural followed by Eastern region. Even in the central region about 90% scheduled caste are in rural areas. The Western region and the Bundelkhand region are the only two regions of U.P. where more than 10% scheduled castes population resides in urban areas.

3. The Working Population in Scheduled Castes

Of the total scheduled caste population in Uttar Pradesh 43.4% (6987,000) are workers and 56.6% are non-workers. The largest percentage of workers among scheduled caste is in the Eastern region (50.4%) closely followed by Bundelkhand with 48.6% and central region with 41.5% as workers. The Western region had only 38% of the total scheduled castes as working population followed by the Hill region which has the lowest percentage (31.3) in this respect.

Considering the total working force of Uttar Pradesh it can be stated that scheduled castes working population formed 24.3% of the total working force of Uttar Pradesh. With regard to its regional distribution scheduled castes workers had the highest percentage (29.1%) of the total workers in the Central region closely followed by the Bundelkhand region (28.9%), Eastern region (24.3%) which was just equal to the State average. The Western region had only 21.9% of the total workers as scheduled caste workers and the Hill region had the lowest of this percentage (16.7). Thus the Central and the Bundelkhand regions had scheduled castes workers more than State average and Western and Hill regions had this percentage lower than

State average. These are explained in detail in the following table:

Table No. 4.7

TABLE SHOWING SCHEDULED CASTES WORKERS AS PERCENTAGE OF TOTAL WORKERS IN 1961

Region	Total workers ('000)	Scheduled caste workers ('000)	S.C. workers as % of total workers
1. Hill	1742	292	16.7
2. Western	8532	1861	21.9
3. Central	5042	1472	29.1
4. Eastern	12054	2934	24.3
5. Bundelkhand	1480	428	28.9
Total (U.P.)	28850	6987	24.3

The figures in the above table are displayed in the Map No. 8 facing this page.

Having analysed the detailed figures of scheduled castes population and scheduled castes workers as compared to total population and total workers it is possible to say that for the State as a whole scheduled castes population formed 20.8% of the total population and scheduled castes workers formed 24.3% of the total workers. Thus the percentage of scheduled castes workers and scheduled castes population correspond with each other when compared to total population and total workers of the State. But the percentage of scheduled castes workers to scheduled castes population is much higher in U.P. because invariably every member of scheduled caste (over 5 years) works. The position

of scheduled castes workers as percentage of scheduled castes population is shown in the Map No. 9 facing this page and explained in detailed in the following table:-

Table No. 4.8

TABLE SHOWING PERCENTAGE OF SCHEDULED CASTES WORKERS TO SCHEDULED CASTES POPULATION IN 1961

Region	S.C. Population ('000)	S.C. Workers ('000)	% S.C. workers to total S.C. population
1. Hill	930	292	31.3
2. Western	4600	1861	38.0
3. Central	3400	1472	41.5
4. Eastern	5700	2934	50.4
5. Bundelkhand	770	428	48.6
Total (U.P.)	15400	6987	43.4

Again in the general population male workers formed 59.20% of the ^{rural} male population and female workers formed only 19.90% of the rural population. In urban areas the percentage of male and female workers formed 51.74 and 5.34 per cent respectively of the total urban population. Among scheduled castes workers in the rural areas males and female workers formed 60.45 per cent and 28.67 per cent of the total rural population of scheduled castes. And in urban areas male and female scheduled caste workers formed 54.60% and 11.90% of the total urban population of scheduled castes in Uttar Pradesh. It may be generalised from the above figures that male participation rate is higher for scheduled caste workers both in rural and in urban areas.

VI - Future of Castes in Uttar Pradesh

Although there are indications that caste system is decaying and may outlive its utility in due course of time, yet one can not say for certain about the future of the institution of caste in U.P. or for that matter in India. There are certain factors which tend to diminish the castes such as rigid caste rules, inherent contradictions, incompatibility with changing social conditions, impact of modern conditions, the spread of western education, the establishment of democracy in the country, western economic influence and urbanisation of regions. The urbanisation helps in the establishment of hotels, clubs, societies, cinemas and new technology which make no discrimination on the basis of caste. But there are certain other factors also which tend to maintain forces of castes. Important among these factors are settled agricultural economy, societies and associations of sub-castes which help the members at ceremonial occasions, adaptability of castes to changed social conditions, wide spread violation of food taboos and pronounced growth of social mobility.

Taking numerous social and economic factors into account one can easily say that the balance is in favour of dissolution of castes yet the caste system is not disappearing rapidly. Caste has been in vogue for the last 3000 years and hence it cannot be eradicated over night. It is correct that in modern towns younger generation observes no distinction in offering or accepting hospitality and the constitution also makes no distinction on the basis of caste but in high caste quarters caste is a passport for promotion and has special consideration. The Hindu social life also strengthens the caste sentiments. In

1950 the Government of India appointed a committee under Shri R.R. Diwakar to enquire into the question of abolition of caste and communal distinction in Governmental actions in accordance with the Constitution, but the report of the Committee never became public. However, it appears that the days of caste oligarchies have gone and cannot and ought not to be revived. Even then it might take more than a century before the institution of caste is completely abolished.

CHAPTER V

CULTURAL ENVIRONMENT OF POPULATION

Cultural environment of the population plays an important role in determining man's economic activity. In its wider sense as already explained earlier the culture refers not only to the external appearance of the civilization but also to the basis of production on which the civilization bases itself. To be very precise it includes cultivation of soil, production of goods and services, advancement of different developmental industries including education and training of the population. Dr. Kaushik¹ detailing the cultural environment includes in it six main elements. He states that cultural environment includes all man made commodities, visible processes, organisation, tradition, scientific advancements and individual technology. To sum up, all the elements of cultural environment cover the area of (i) urbanisation and economic growth of the region, (ii) its industrial and technological development, (iii) availability of power coupled units and (iv) net work of transport and communication facilities. All these factors together exercise considerable influence on the occupational pattern of the population. It can be mentioned by way of an illustration that mountainous slope, climate and soil together determine the nature of cultivable crops in the region

1. Kaushik, D.S.- 'Manav Bhoogole', p. 48.

and consequently influence occupational behaviour of the population residing in that area. Sowing, harvesting and output of crops have considerable influence on social living and specialisation of labour in the region concerned. Thus the economic pattern of U.P.'s population is largely dependent to its resources particularly agricultural land and has great chance for further rapid growth in the near future. As such U.P. must find the solution of its economic and demographic problems because of its very large sized population.

It is in the light of foregoing description that I have made an attempt to analyse the influence of cultural environment on the occupational pattern of Uttar Pradesh. Objectively occupational engagement and economic activities are so closely correlated with each other that it has become difficult to make a precise and rigid distinction between the two. The fundamental concept of economically active population has been defined to include that part of population which furnishes the supply of labour for production of economic goods and services including employers' own account workers and unpaid family workers as well as employees and including the unemployed as well as persons actually engaged in these types of work at the time of enumeration. Thus "any occupation for which the persons engaged therein are remunerated, directly or indirectly in cash or in kind..... is to be considered as gainful occupation. Household work done by the members of the family in their own homes is not included under the description but work done by members of a family in helping the head of the family in his occupation is so included

even though only indirectly remunerated.¹

The popular saying that 'real Indian lives in villages and cities are merely show rooms', has yet not been refuted in terms of country's economic growth where most of the development has taken place only in urban areas. Rural areas of India even today are deprived of facilities of higher education and training inspite of twenty years of economic planning. It is in this light that I have analysed the cultural environment of Uttar Pradesh. With a view to have a systematic study of the problem this chapter has been conveniently sub-divided into (i) urbanisation and diversification of economic activities, (ii) Difference in socio-economic pattern of rural and urban areas, (iii) Economic pattern of KAVAI² towns of Uttar Pradesh, (iv) Occupational engagement of urban population and (v) Future prospects of urbanisation in Uttar Pradesh.

I - Urbanisation and Diversification of Economic Activities -

The fundamental basis of dividing the population into components for comparative analysis of the behaviour of economic advancement and diversification of occupational engagement is the character of residence. The most common distinction in this respect is that of rural and urban residence. The culture of any region is more truly represented by urban areas rather than by rural areas. There is always shift in the occupational pattern

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1. 'Population Census Methods' - p. 98 - UNO Statistical Office, Deptt. of Economic Affairs.
 2. Five cities of Uttar Pradesh with population exceeding one lakh each have Municipal Corporations. These together are called KAVAI towns. These are Kanpur, Agra, Varanasi, Allahabad and Lucknow.

when a region is transformed from rural to urban one. Although the break-up of population between rural and urban sections in this study as also elsewhere has been made according to the definition adopted in each individual censuses, the division has not solely depended on the size of population alone though the same has remained a major factor.

Definition of urban Area : Since the matter of giving definition to urban area has been left to the discretion of census authorities it has always remained looser than those of other terms defined by scholars and academicians. The definition of an urban area has always been changing from census to census. Any survey investigation to distinguish between rural and urban areas in view of constantly changing definition will not provide much information for correct inference. There are many places in interior areas of Uttar Pradesh where not even a settled market, cinema house, tea-stall or even a cycle repairing shop is available yet the area has been defined as a town. On the other hand some rural packets which have developed in the close vicinity of railway stations and outskirts of big industrial cities or factories include automobile repair and spares shops but these areas still remain villages in the records of the Government.

However, coming to the definition of 'urban area', according to the census authorities the term applies to all places classified as town including town groups and cities. Any area classified as town is based on either (a) administrative criteria or (b) urban characteristics. It is satisfying to note that administrative criteria has been common to all the censuses, which have treated regardless of population size, all the places served by

(i) municipal corporation, (ii) municipal area, (iii) town area committee, (iv) notified area committee, and (v) cantonment board as towns. But the criteria of urban characteristics to apply the term urban to any place has been changing from time to time. Prior to 1901 the definition of town was not very clear and much was left to the discretion of Census authorities. However, in this period a 'village' for census purposes was defined to denote the area demarcated for revenue purposes as a mauza provided that where such a village or part of a village formed part of the area of a town it was included in such a town. The definition of a town was so looser as to include even compact group of continuous villages whose population exceeded 5000. Thus in pre 1901 period as even to-day an urban population is the sum of people living in towns and cities and the rural population is what remains. However, from 1901 the census authorities have given a proper definition to the term town and city. Since these definitions varied from census to census it may not be much out of the place to mention them here censuswise in a summary form. These are as under:

1901 "Every other (apart from those areas covered by administrative characteristics) continuous collection of houses permanently inhabited by not less than 5000 persons, which the provincial superintendent may decide to treat as a town for census purposes."

1911 "Every other continuous collection of houses inhabited by not less than 5000 persons which the provincial superintendent may decide to treat as a town for census purposes." In addition a few places, chiefly in the native states not satisfying the

above requirements were also treated as towns for special purposes. The provincial superintendents were however instructed when considering the question of treating places as towns on the basis of their population, to take care to exclude such areas as are merely overgrown villages and have no urban characteristics. It is true that discretion thus allowed has occasionally resulted into lack of uniformity.

1921 "Every other continuous collection of houses inhabited by not less than 5000 persons, which the provincial superintendent may decide to treat as a town for census purposes." In Indian States where there were no municipalities this definition was required to be extensively applied. "In dealing with questions arising (in this respect), the provincial superintendent will have regard to the character of the population, the relative density of the dwellings, the importance of the place as a centre of trade and its historic association and will bear in mind that it is undesirable to treat as towns overgrown villages which have no urban characteristics."

1931 "Every other continuous collection of houses inhabited by not less than 5000 persons, which the provincial superintendent decided to treat as urban.* In making this decision, consideration was given to (a) character of population, (b) relative density of the dwellings, (c) importance of trade, historical association and to avoid treating as towns overgrown villages without urban characteristics. In 1931 any town whose population in 1921 was not less than 100,000 as also any town which the local government decided to be a city for census purposes was treated as a city.

1941 and 1951 In these censuses a city was defined as a town whose population was not less than one lakh or any other town with an expected population of 50,000 or above which the State Census Superintendent with the sanction of the State Government might decide to treat as a city for Census purposes was also to be treated as such.

1961 Till 1951 census authorities did not give separate treatment to rural and urban areas. But the two sectors on account of their entirely different character deserved separate detailed treatment and thus the separation of urban from rural areas became very important. At the previous censuses no uniform definition of urban area was adopted for the country as a whole. Till 1951 in U.P. the usual practice was to treat all cantonments, municipalities, notified areas and all places with a continuous abadi of 5000 or over as town. In view of industrialisation programmes and growing need for international comparability to the extent it may be possible, a uniform definition of 'urban area' has now been adopted for the country as a whole.

The following kind of places were deemed to be urban areas in the census of 1961:

1. All municipalities and notified areas
2. All cantonments
3. All places satisfying the criteria of
 - (a) population exceeds 5000
 - (b) at least three-fourth of the working population depends on non-agricultural pursuits and
 - (c) density of population exceeds 1000 persons per square mile

4. All localities though not in themselves local bodies which are continuous to a city or town and have urban characteristics of (b) and (c) above.

All the above places have been treated as towns and those of them with a population of one lakh and above as cities. The application of new definition in 1961 has severely curtailed the number of towns. In 1951 there were 486 towns but the number was reduced to 267 in 1961 as a result of change in the definition. In all 222 towns of 1951 were declassified and treated as rural areas. In 1951 as many as five towns of 1941 were dropped.

1971^F The same definition of 1961 was largely followed in this census also. The term urban was used in a liberal sense before 1961 and included any place with urban characteristics. This discretion was left with census authorities. Taking country as a whole Maharashtra is the most urbanised State of India where nearly 31.20 percent of the population lives in cities. This is closely followed by Tamil Nadu with 30.28 percent population in cities, Gujarat with 28.13 per cent, West Bengal and Mysore close to 25 per cent population in cities. Least urbanised States are Himachal Pradesh 7.06 per cent, Orissa 8.3 per cent, Assam 8.4 per cent, Nagaland 9.9 per cent and Bihar with 10 per cent population in cities. Thus the rate of urbanisation depends primarily on the rate of industrialisation. Only with 14.6 per cent urban population Uttar Pradesh is India's largest State with 293¹ towns and stands second only to Tamil Nadu which has 443 towns. Uttar Pradesh has 22 class I towns.

1. Census of U.P., Paper I of 1971 (Provisional Totals).

Causes of Urban Growth :

The rate of urban growth has not been uniform in the State of Uttar Pradesh wherein some cities have grown faster than others partly because of the nature of economic forces behind the whole urbanisation trend and partly because urban expansion might have arisen due to migration or due to natural increase. Analysis of detailed statistical information of Uttar Pradesh indicates very clearly that urban population has been increasing faster than rural population and bigger cities have grown faster than smaller ones. Indirectly it boils down to the presumption that either the cities have outstanding low mortality or they have received greater number of migrants. Taking over all position of bad sanitary conditions and over crowding in cities it may not be justified to account for the growth of urban population on the basis of a greater natural increase. Then only major explanation therefore lies in migration.

Figures on migration of population from rural to urban areas are also very poor to infer any conclusion. In fact no serious attempt has been made to trace the historical trend in this respect. Still as the urbanisation in Uttar Pradesh gains better momentum the percentage of outborn people in the cities will also increase. In view of more rapid expansion of economic facilities in urban areas there is no reason to expect any diminution of rural urban migration in the near future. One of the fundamental characteristics of rural - urban migration in Uttar Pradesh is that most of the migrants are men, female migration if any is largely on account of marital function.

The population of Uttar Pradesh is generally immobile and

the rural urban migration is therefore peculiar and based on factors of push from rural areas and pull within the city itself to retain the urban population from migrating to rural areas. These two factors are mutually dependent because a push in the village might not be so regarded if there were no pulls in the city and the vice-versa. Yet it is not possible to demarcate the two factors to examine the degree of migration on account of individual factors. Among the important motives behind the rural urban migration special mention may be made that of (i) village pressure and (ii) urban advantages. The plight of agricultural population in rural areas is itself sufficient to explain a mass migration movement.

The extremely high density of cultivators on arable lands, hopeless character of rural indebtedness, the progressive subdivision and fragmentation of holdings, the recurrence of drought and failure of crops, inefficient mode of cultivation and stock raising and uncertainty of local and foreign markets all comprise to make the cultivator's life unbearably hard. Till 1930 industries in urban areas always complained of shortage of labour supply and business magnets had to spend time and money both in recruitment of labour. In spite of all the odds, the rural cultivators in Uttar Pradesh does not react to adverse conditions to decide migration unless he reaches starvation level because he has strong sentimental attachment to his land and village. Ordinarily rural people are willing to make considerable sacrifice to retain the rural advantages because home sickness weighs heavily. The cultivator wants to live in the village at almost any price. Thus villages not only push the population out but pull in some population.

The urban areas on the other hand offer some exclusively economic advancement. The rural people migrate to urban areas largely to find remunerative work and that is why they do not stay there permanently. Even in the present days many people come to city to work as rikshaw-puller or labourer and return back to the village when they have earned some money. Villagers do not like the city because of their tradition, association and habits of all^{of} which are rural in character. Unhealthy urban conditions compell the villagers to live in cities only till it is essential and that makes him reluctant to bring his family to the city without which city looks unattractive to him. It is on this account that cities in Uttar Pradesh have most distorted sex ratio. On the basis of available statistical information it can be stated that a majority of cultivators who migrate from village to urban areas work in the factories till they save enough money to go back home pridefully. Kingsley Davis¹ estimates that in a large number of factories five percent of the workers leave each month which entails serious loss of efficiency and enhances the wage bill also.

However the tendency to return back to the villages is declining and there are evidences that labourers have become more accustomed to the city life with many of them expecting to spend their lives there. Today the urban worker is increasingly reluctant to return to the village and he is more susceptible to new line of thought and conduct than an average rural worker. Thus if urbanisation continues, if the cities gradually acquire better

1. 'Population of India and Pakistan'.

housing and better recreation facilities a typical urban proletariat should develop. The high turnover that has characterised U.P.'s industrial labour force would tend to diminish leading to greater efficiency and improved industrial relation.

Extent and Growth of Urbanisation :

The modern city of Uttar Pradesh is of peculiar significance because it serves as a diffusion centre for western traits. In its objective sense the city is a place where social changes begin, where the specialisation, talent and organisation necessary for organising and executing new ideas are available. The city development therefore is a good index of past economic progress and a safe augury of new progress to come. In many ways what is happening in the city, i.e., urban area to-day is what may be happening to the rest of the areas in future. Uttar Pradesh has always been predominantly rural because of her agricultural economy and is even today a region of tiny and nearly self sufficient villages. The cities that developed in the pre-British period were few in number and archaic in type. They suffered from the same unsettled conditions that prevented the single farm mode of rural settlement. The cities did not rest primarily upon industrial and commercial development but rather on political and religious function. The muslim rulers in India frequently shifted the seat of the Government and when they did so the capital city suddenly dwindled to nothing and a new city arose around the next governmental site. Cities also arose at strategic points where military necessity required a permanent camp such as bridge heads, maintain passes and cross roads. Some other cities arose at religious sites where pligrimage were made and

temples were built. It is only recently that the modern city based on industry, trade and natural resources came into prominence. The emergence of this new type of city means that urbanisation can go and is going much faster than it did under old conditions. It is this new city that is quickening the process of social change in the country.

Similar to other modern development the growth of cities began in a small way and made gradual but steady progress. Based largely on the definition given by different censuses. The total number of towns and villages in the State of Uttar Pradesh was as follows in different census years.

Table No. 5.1

TABLE SHOWING TOTAL NUMBER OF TOWNS AND VILLAGES IN UTTAR PRADESH DURING THE PERIOD 1872 - 1971

Census years	Total No. of Districts	Total No. of Towns	Total No. of Villages
1872*	47	262	114071
1881	49	297	105124
1891	49	484	105716
1901	48	453	105068
1911	48	418	106023
1921	43	435	104347
1931	48	441	105640
1941	48	445	102388
1951	51	486	111722
1961	54	267	112624
1971	54	293	112594

* Including figures given by Census of Oudh for 1869.
Source : Census of U.P. 1961, Vol. I, Part A(1), p. 59.

The trend of growth of town and villages in U.P. is shown on the accompany graph facing this page.

It is clear from the table above that the number of villages has not significantly decreased inspite of continuous transformation of rural areas into towns and cities. This may be due to the fact that there has been continuous increase in population and habitation of newer areas. Based largely on the size of population all towns of Uttar Pradesh as elsewhere in India have been divided into six major classes on the criterion which was followed in previous censuses also. The fundamental criterion has been as under:

<u>Towns of population of</u>	<u>Class of Town</u>
a. 100,000 and over	I
b. 50,000 to 100,000	II
c. 20,000 to 50,000	III
d. 10,000 to 20,000	IV
e. 5,000 to 10,000	V
f. Below 5,000	VI

Thus divided into different classes of towns the exact number of towns in each class has been as under during different census years:

Table No. 5.2

TABLE SHOWING NUMBER OF TOWNS IN EACH CLASS OF TOWNSHIP DURING THE PERIOD 1901 to 1971

Class of Towns	Census Years							
	1971	1961	1951	1941	1931	1921	1911	1901
I	22	17	16	12	8	7	7	7
II	20	16	12	11	11	12	10	11
III	67	52	42	40	29	18	17	20
IV	90	75	71	71	65	56	65	71
V	81	74	169	156	137	141	140	164
VI	13	33	176	155	191	201	171	180
Total (U.P.)	293	267	486	445	441	435	418	453

Source : 1961 Census, p. 172, Vol. I, Part A(1) and Paper I, 1971.

While making comparison of towns by classes for the last some census years it is essential to know that owing to change in the definition of urban area by the census of 1961 the detailed figures are comparable only upto 1951 because upto that census the definition of urban area remained almost the same. The change in the definition in the census of 1961 has rendered the figures for 1961 and 1951 totally uncomparable. In the above table the difference in the number of town groups and towns from census to census are due to following reasons:

1. Movement of a town from one class to another.
2. Elevation of a rural area to a township.
3. Amalgamation of a number of satellite towns with big towns, and
4. Elimination in 1961 of places regarded earlier as towns.

The percentage of urban population when expressed in terms of the total population of any region is a good index of the growth speed of urbanisation. It is on this basis that one will not hesitate to state that the State of Uttar Pradesh has had a very slow rate of urbanisation in the past years and even during the post-independence period this rate has not gained much momentum. The table below shows the percentage of total population of Uttar Pradesh residing in urban areas during different census years:

Table No. 5.3

TABLE SHOWING PERCENTAGE OF URBAN POPULATION TO TOTAL POPULATION OF UTTAR PRADESH DURING THE LAST ONE HUNDRED YEARS;

Census year	Percentage of urban population to total population
1872	9.6
1881	10.9
1891	10.8
1901	11.09
1911	10.21
1921	10.58
1931	11.19
1941	12.42
1951	13.64
1961	12.85
1971	14.69

The percentage variation of urban population of Uttar Pradesh during the last one hundred years is shown by means of a Graph facing this page.

Measurement of Urbanisation :

There are two distinct methods of measuring urban growth -- the instantaneous method and the continuous method. Under the first method population of all urban areas is ascertained at each and every census regardless of cities that compose it. On the other hand the continuous method begins with particular cities and traces the subsequent expansion of these groups. Each method answers a different question. The first method shows that what is happening to the population in terms of its distribution by the size of city and the second method shows as to what is happening to the specific cities as a result of their initial size differences. Since both these methods are complementary it would be better to analyse the population of Uttar Pradesh by both these methods.

The instantaneous method suffers from the disadvantage that at each census new towns are added in a given class that were previously not in that class. Yet this method is simple in calculation and shows actual distribution of population in urban areas of different size at each census. Applying the instantaneous method the number of towns in different population classes in the census year 1961 was as follows:-

Table No. 5.4

TABLE SHOWING NUMBER OF TOWNS IN DIFFERENT POPULATION CLASSES OF UTTAR PRADESH DURING THE CENSUS YEAR 1961

Population class	Number of Towns
10,000 to 20,000	160
20,000 to 30,000	35
30,000 to 40,000	55
40,000 to 50,000	39
50,000 to 75,000	33
75,000 to 100,000	21
Above 100,000	17 (22 in 1971)

Source : U.P. Census Report, 1961, p. 219.

Taking the second method into account that is the continuous method it can be stated that it can be applied either separately each decade the cities being taken as those existing at the beginning of each decade or to a much longer period. From the available census data it has been possible to trace towns of various sizes in U.P. from 1872 (figures prior to 1901 have been interpolated). It has been observed very clearly that larger the class of city prior to 1900 the faster the subsequent rate of growth. Thus it has been proved beyond doubt that urbanisation is itself a factor in still greater urbanisation. The trend conforms the western pattern of urban development. It may be mentioned here that if urban development in Uttar Pradesh is accelerating, if larger cities are going ahead because they are larger there is every reason to believe that westernisation itself is going ahead at an accelerating rate. The table below displays the population rank of various towns of Uttar Pradesh.

Table No. 5.5

TABLE SHOWING POPULATION RANKS¹ OF CLASS I TOWNS OF UTTAR PRADESH DURING the period 1872 - 1971

Class I cities of 1971 census years	Population rank in different census years										
	1971	1961	1951	1941	1931	1921	1911	1901	1891	1882	1872
Kanpur	1	1	1	1	2	2	4	3	3	5	5
Lucknow	2	2	2	2	1	1	1	1	1	1	1
Agra	3	3	3	3	3	4	3	4	5	3	3
Varanasi	4	4	4	4	4	3	2	2	2	2	2
Allahabad	5	5	5	5	5	5	5	5	4	4	4
Meerut	6	6	6	7	7	7	7	7	7	7	7
Bareilly	7	7	7	6	6	6	6	6	6	6	6
Moradabad	8	8	8	8	8	8	8	11	13	13	11
Aligarh	9	10	11	9	10	13	12	13	16	14	13
Gorakhpur	10	11	13	13	13	14	16	16	14	15	14
Saharanpur	11	9	9	11	12	12	13	15	15	16	15
Jhansi	12	12	14	12	9	11	11	-	-	-	-
Dehra Dun	13	13	10	16	-	-	-	-	-	-	-
Rampur	14	14	12	14	14	9	9	9	12	11	-
Shahjahanpur	15	16	16	10	11	10	10	10	10	10	10
Mathura	16	15	15	15	16	-	15	-	-	-	12
Firozabad	18	-	-	-	-	-	-	-	-	-	-
Ghaziabad	18	-	-	-	-	-	-	-	-	-	-
Muzaffarnagar	19	-	-	-	-	-	-	-	-	-	-
Farukhabad	20	-	-	-	-	-	14	14	11	9	9
Mirzapur	21	-	-	-	-	16	-	8	8	8	8
Faizabad	22	-	-	-	15	15	-	12	9	12	16

1. Ranks have been calculated on the basis of size of town population in different years.

The diagram facing this page displays the shifting ranks of towns of Uttar Pradesh.

Mathematical Model of Urban Growth :

The urban growth of any region can also be measured mathematically with the help of Pareto's law. Ordinarily this law expresses relationship between the level of income and corresponding number of income earners. Applying this law to the urban growth we can substitute number of towns for number of income receivers and level of population for level of income. If x denotes the level of population and y the number of towns, the equation connecting x and y would appear as follows:

$$y = ax - b$$

Thus where a and b are two constant b is positive. Taking log it will be $\log y = \log a - b \log x$. Putting $\log y = Y$, $\log x = X$ and $\log a = A$ the equation will be reduced to

$$Y = A - bX$$

Here the value of constant a and b can be worked out by the Least Square method.

The Pareto curve fits to groups of towns for each census year. The law in general operates in the case of towns having population 10,000 and over. The slope of the Pareto curve may be interpreted as a measure of the degree of urbanisation. The more steep the line the more even is the distribution of population in the corresponding towns. Migration of people from lower to higher classes and the vice-versa directly influences the distribution of population in towns.

The Uttar Pradesh Census authorities have studied the State's

urban growth with the help of Pareto law from 1941 to 1961 for which the figures appear as follows:-

Table No. 5.6

TABLE SHOWING SLOPE OF CURVE OF URBAN GROWTH OF UTTAR PRADESH FROM 1941 TO 1961

Year	Slope of the curve	Value of constant a and b
1941	- 1.0715	+ 6.2694
1951	- 1.0668	+ 6.1846
1961	- 1.1167	+ 6.0313

The figures in the above table indicate the fact that value is lower in 1941 than in succeeding years which means population gets relatively larger and larger and there is scope for more acceleration of urban population. The urban growth of Uttar Pradesh when measured with the help of Pareto Law could appear as shown in the accompanying diagram in the form of slope curve which has been drawn with the help of logs detailed below:

Log of X and Y

Log x = Population size.

Log y = Number of towns

x = 1 00 000 = 5.00

y = 17 = 1.23

75 000 = 4.88

21 = 1.32

50 000 = 4.70

33 = 1.52

40 000 = 4.60

39 = 1.59

30 000 = 4.48

55 = 1.74

20 000 = 4.30

85 = 1.93

10 000 = 4.00

160 = 2.20

II - Difference in Soc o-economic pattern of rural and urban areas.

Hundred years of census records of Uttar Pradesh has produced elaborate account of different phenomenon of people's life without statistical support but with enough details. In a region largely illiterate where even age records are not very reliable, an understanding of social structure is highly essential. It is more or less absolutely important to acquire a broad understanding of what is happening around oneself rather than to wrap oneself only in mathematical calculations and generalisation. Census in Uttar Pradesh as elsewhere in India has paid more attention to the life of the rural people which has admirably suited our present political and economic structure. Invariably in every census village records have provided details of social structure and social change. The statistical details of village records provide data to find out how much a rural region is static yet changing and how fast the winds of change are blowing and from where. Village records also provide data about unemployment, employment opportunities, occupational engagements of the population and occupational mobility.

The census organisation of 1961 selected a number of villages for special study of dynamic changes in socio-cultural and economic life of rural community. The analysis of the functioning of village economy reveals the forces which promote or retard the process of change coming into play either in natural course or as a result of various governmental measures such as extension of planned development activities. Some villages have certain dominating occupations followed by a particular community while

others are populated by backward people with diverse occupations.

Rural - Urban distribution of Population:

The State of Uttar Pradesh has higher rural composition than that of India. In 1961 as high as 87 per cent of State's total population lived in villages as compared to 82 per cent for India. This very situation has prevailed in most of the census years as displayed by the following table:

Table No. 5.7

TABLE SHOWING COMPARATIVE PERCENTAGES OF RURAL URBAN POPULATION OF INDIA AND UTTAR PRADESH DURING DIFFERENT CENSUS YEARS

Census Years	Percentage of rural urban population to total population of			
	India		Uttar Pradesh	
	Rural	Urban	Rural	Urban
1901	89.16	10.84	88.91	11.09
1911	89.71	10.29	89.79	10.21
1921	88.82	11.18	89.42	10.58
1931	88.01	11.99	88.81	11.12
1941	86.14	13.86	87.58	12.42
1951	82.71	17.29	86.36	13.64
1961	82.03	17.97	87.15	12.85
1971	82.00	18.00	86.00	14.00

Statistical analysis of census data reveals that villages of Uttar Pradesh are of smaller size than those of other states. More than half of the total number of villages have less than 500 population and accomodate about 21 percent population as compared to 17 percent average for the country as a whole. Thus statistically

there were in 1961 about 192 villages per urban centre in Uttar Pradesh as against 85 for India. The proportion of urban population is relatively less as compared to India which reflects comparatively lower degree of industrialisation in this State. 1971 census reported a total number of 22 Class I cities in Uttar Pradesh each having population of more than 1,00,000. If these cities are any index of urbanisation it is lowest in Eastern U.P. where only three cities Kanpur, Varanasi and Agra have substantial industrial activity. Descomⁿⁱbinⁿⁱg the economic growth of a region and shift in occupational pattern Ambassador Kenneth E. Keating stated at Osmania University, Hyderabad on January 17, 1970 that "Our cities desperately need revitalisation. Some suffer from air pollution. Pollution is a problem in our waterways. We have slums and for the most part they are breeding grounds for crime. And they are our shame - not because they are worse than those in other nations but because we like to consider ourselves a people who meet their problem head on and solve them. We think of ourselves as a nation with ideas and ideals and dream of truly just society where quality of life rises above quantity."

The United States is now truly an urban nation and perhaps the world's first 'test case' of whether a fully city oriented society can succeed in the 20th century and beyond. The battle is to humanise city life, uplift its character and realise its potential -- could be an image for future of India and other developing countries. As Indian cities attest, the lure and attraction of city life draws over growing population. More people mean more problems of every sort from education to population and from employment to sanitation. In U.S.A. more than 70 percent

of population lives in cities as against 17 percent for India and 14 percent for Uttar Pradesh. In U.S.A. only 5 percent of population is engaged in agriculture whereas more than 70 percent population of Uttar Pradesh depends on agriculture. To sum up urbanisation is a major international problem. If we take it in all its dimension it poses more problems for the world than any thing else. Invariably every nation has financial and technical capacities to resolve its problems but the biggest obstacle is institutional structure such as education, land distribution and public welfare programmes with private efforts. Some reputed population specialists are of opinion that cities of the world are simply growing to be unfit to live in by the end of the century. Pollution, congestion, physical and mental strain are some of the insurmountable problems. Thus the question of most desirable pattern of urban growth should be seriously debated as follows:

1. Should population densities in established cities be increased?
2. Should completely new towns be built containing their own employment centres, shopping facilities and other urban amenities. And if so should these be built on the fringes of older urbanised areas or should they be built in what are now rural areas. The State of Uttar Pradesh has to answer very carefully these two vital urbanisation questions because even without reaching the climax of urban growth it has got involved into all drawbacks of modern cities.

The socio economic disparity occurs not only between rural and urban areas but within the different regions also which have highly variable economic levels with the result that some of

these regions are among the poorest in the country. The density of population has also greatly affected the level of economy of each of these regions. The density of population of different economic regions of Uttar Pradesh has been as under during the census year 1971.

<u>Region</u>	<u>Density per sq. km.*</u>
Hill Region	74
Western Region	381
Central Region	343
Eastern Region	387
Bundelkhand Region	146
Total U.P.	300

* Source: Statistical Diary 1971, p. 29 U.P. Directorate & Stat.

It may be stated here that high density areas have lower per capita income. Based on per capita income, population density and physical characteristics the State of Uttar Pradesh can be conveniently divided into five regions which are geographically contiguous. Within each economic division there are subdivisions with varying levels of economy. Statistically the Central region has highest per capita income because of numerous industries. The poorest of all the regions in the State is the eastern region.

Urban Growth :

In 1901 the urban sector accounted for about 10 per cent of the total population. Since then it has tended to expand at a faster rate as compared to the rural sector. Consequently its share in the total population has kept on increasing. The relevant

rates of urban growth are given below in a tabular form:

Table No. 5.8

TABLE SHOWING RATE OF URBAN GROWTH IN U.P.

Year	Total urban population ('000)	% growth rate (Approx.)
1901	5849	-
1911	4816	- 10
1921	5134	+ 6
1931	5475	+ 7
1941	6784	+ 19
1951	8850	+ 30
1961	9586	+ 9
1971	12368	+ 30.47

Figures displayed in the above table disclose the fact that the rate of population growth has been higher in urban areas than in rural areas in all the census years except the few ones. The demographic process of urbanisation as defined by the increasing trend of urban population in the total population can be said to have continually operated through all the decades of course its rates varied from census to census.

Sex Ratio :

The behaviour of sex ratio can be dealt with as an aspect of population growth both in rural and urban areas. The sex differential in growth rate has been a continuing feature in both urban and rural areas althrough the last one century for which census details are available. The differential in growth rate in favour of males has been larger in urban areas than in

rural areas. Thus from decade to decade increase in population was shared unequally between males and females and the inequality was larger in extent for the urban areas. If we consider the urban sector alone the female population recorded decline as compared to male population which registered a definite increase. The share of females in increase in the population had in fact improved progressively from 1901 to 1961. Thus conditioned by the continuing disparity between the rural and urban sex differentials in growth rate the behaviour of sex ratio has been markedly different between the rural and urban areas. ~~as is clear from the table given on opposite page.~~

The declining trend in sex ratio appears to have been more continuous for the rural sector but the extent was much smaller as compared to that of urban sector sex ratio in each decade. The amount of decrease in rural sex ratio tended to decline from decade to decade till it became completely insignificant during the decade 1941-1951. The urban sex ratio also continually declined upto 1941 and the amount of decrease was in an ascending order. Afterwards urban sex ratio recorded continuous increase. The difference between rural and urban sex ratio increased progressively upto 1951. So far percentage rate of variation in the population of rural and urban sectors is concerned it will be seen that in general the urban rate of growth has been larger than the rural. The resulting changes in the proportion of urban population are given in the following table;

Table No. 5.9

TABLE SHOWING PERCENTAGE VARIATION IN URBAN POPULATION IN DIFFERENT CENSUS YEARS

Census years	% Decennial variation in urban population
1872 - 1881	- 5.3
1881 - 1891	+ 0.1
1891 - 1901	+ 3.2
1901 - 1911	- 8.12
1911 - 1921	+ 3.83
1921 - 1931	+ 5.76
1931 - 1941	+10.90
1941 - 1951	+ 9.91
1951 - 1961	- 5.79
1961 - 1971	- 7.70

Between 1901 to 1971 urban population increased in all the economic regions but rural sex ratio has always been in excess of urban sex ratio as is clear from the following table:

Table No. 5.10

TABLE SHOWING DIFFERENCE IN RURAL URBAN SEX RATIO (RURAL - URBAN)

Census Years	Difference
1901	23
1911	69
1921	94
1931	110
1941	118
1951	105
1961	112
1971	62

In the above description I have first calculated the relative size of rural and urban population and then the differences between their sex ratios in the census years. Both types of sectoral relationships have shown variations. To establish relationship between the two variations I calculated correlation with the help of (i) the ratio of urban to rural population and (ii) the ratio of urban sex ratio to the rural sex ratio. Substituting the two ratios I came to the conclusion that there does not obtain any correlation between variations in the degree of urbanisation and the corresponding variation in the quantitative relationship between the sex ratio of the two sectors. However, increase in urban population and the reduction in the sectoral differential in the sex ratio appears to be correlated in Uttar Pradesh as elsewhere in India. Taking urban sector alone the State of Uttar Pradesh witnessed urbanisation in almost all the regions and this point is admirably supported by the extent to which urban population growth tended to exhibit selectivity in respect of sex. The figures in the following table are indicative of this fact:

Table No. 5.11

TABLE SHOWING FEMALE PROPORTION IN DECENNIAL INCREMENTS TO URBAN POPULATION

Census Years	Decennial Proportion
1921	45.22
1931	44.66
1941	44.59
1951	45.06
1961	44.80
1971	44.86

The growth rate of urban sex ratio can also be studied with the help of urban sex relatives which are as under for different census years:

Table No. 5.12

TABLE SHOWING INDICES OF URBAN SEX RATIO (Base year 1901 = 100)

<u>Census Years</u>	<u>Urban sex relatives</u>
1901	100.00
1911	97.82
1921	97.52
1931	96.30
1941	96.87
1951	95.35
1961	96.09
1971	

The trend of urban growth in different classes of towns can be studied with the help of percentage variation of urban population in each class of towns comparative to 1901 population or even earlier if figures are available. The following table provides some such figures:

Table No. 5.13

TABLE SHOWING PERCENTAGE INCREASE IN URBAN POPULATION OF 1971 IN EACH CLASS OF TOWNS

<u>Class of Town</u>	<u>Percentage increase over 1901 towns</u>
I	314
II	182
III	335
IV	126
V	-71
VI	158
Total (U.P.)	-64

It is really interesting to note as to how each class of town has shared the increase in total urban population. The rate of Class I towns in absorbing the increase in urban population has been notable. More than half the increase of urban population is shared by this class. The percentage for the State as a whole has been 95. The next position in order of importance is that of class III towns followed by class II and class IV. The share of towns in class V and VI is in the same order in which these towns stand. The percentage distribution of increase between 1901 and 1961 in urban population in each class of towns has been as under:

Table No. 5.14

TABLE SHOWING PERCENTAGE INCREASE IN POPULATION OF EACH CLASS OF TOWNS

Class of Towns	Percentage increase between 1901 to 1961
I	94.73
II	8.84
III	23.55
IV	1.16
V	-14.09
VI	-14.19

Now taking to the variation in sex ratio it may be noted that the ratio of urban population in the country as a whole suffered a continual decline during the period 1901 to 1941 which was followed by sizable improvement during the decade 1941-1951 but again by a decrease during the period 1951-1961.

The ratio in 1961 was smaller by 65 points as compared to that of 1901. Thus decrease was by 105 points in U.P. A perusal of changes in sex ratio of population in different urban classes from 1901 to 1961 clearly reveals that the reduction of sex ratio has been much more common than its increase. This is true even for class I towns of the State. The table below gives 1961 sex ratio of urban classes expressed as percentage of the sex ratio of urban sector of the State as a whole.

Table No. 5.15

TABLE SHOWING VARIATION IN SEX RATIO OF EACH CLASS OF TOWNS IN UTTAR PRADESH

Class of Towns	Sex ratio as percentage of total urban sex ratio of 1971
I	98.5
II	103.1
III	101.6
IV	102.3
V	101.6
VI	62.6

The latest position of rural urban composition of the population of Uttar Pradesh in its different regions is as under which is displayed in the Map No. 10 facing this page.

P.T.O.

Table No. 5.16

TABLE SHOWING RURAL URBAN COMPOSITION OF POPULATION OF UTTAR PRADESH IN 1971

Regions	Population ('000)			Percentage to total population	
	Total	Rural	Urban	Rural	Urban
1. Hill	3808	3250	558	85.4	14.6
2. Western	31339	25617	5722	82.8	17.2
3. Central	15746	13793	1953	87.6	12.4
4. Eastern	33178	29671	3507	89.4	10.6
5. Bundelkhand	4294	3665	629	85.6	14.6
Total (U.P.)	88365	75996	12369	86.0	14.0

III - Occupational Engagement of Urban Population :

The occupational distribution of population in U.P. is heavily biased in favour of agriculture. In 1961 as much as 75 per cent of the total working population in this State depended on agriculture as against 69.5 per cent average for the country as a whole. Thus the very heavy pressure of population on agriculture is a reflection of the lack of development of employment opportunities in other fields. The proportion of population engaged in industry and tertiary activities of U.P. is lower as compared to India. In view of heavy pressure on land greater efforts are needed to develop other sectors of State's economy so that surplus population could be diverted to non-agricultural pursuits. In areas situated nearer the river bank the most common occupation is that of boat ^wrowing but confined to male population only. In agricultural labour women exceed men almost everywhere.

Then are the occupations in business and transport.

Generally people in rural areas follow traditional occupations but in some cases they have taken to other occupations due to domestic or financial circumstances. Say Mal ah generally take to fishing and boat-rowing and Ahir to agriculture either as cultivator or labourer. If the cities in U.P. have grown through migration rather than natural increase and if their main attraction has depended on economic opportunities rather than way of life or recreational facilities it could be expected that most rapid growth would occur only in industrial cities. To test this belief I have already stated that 95 per cent of the total urban increase in population during the period of 1901 to 1961 has been shared by class I cities alone. Statistics relating to the percentage distribution of urban workers into specific occupations disclose that cities with greatest proportion of workers in industry or in trade, transport and commerce tend to grow faster than in cities with smaller proportion. Thus there is every reason to believe that in U.P. cities are growing because of some economic factors that promoted urban growth in western nations in early stages. Further more the data furnish independent evidence of the view that economic opportunities afforded by modern life constitute the main attraction in drawing migrants to cities.

The significance of urban growth in U.P. can be easily judged by the occupational characteristics of the city population as contrasted to rural population. The gulf between city and country life is much wider in U.P. than in other states and this fact is reflected in relative degree of literacy and sex ratio but not in

age composition. The occupational pattern between urban and rural population shows a sharp distinction. The percentage of workers in agriculture is 76.8 in rural areas whereas it is only 10.1 per cent in urban areas. The rural population is distinguished by its virtually complete devotion to a single occupation. Still difference between the occupational structure of the rural and urban population though sharp is not greater than in western countries. Many towns and cities in U.P. are still dominated by the rural economy. The city is the diffusion centre for modern civilisation and as it comes to dominate the country side, the new will come to dominate the old. The faster urbanisation will simply exaggerate the already hard conditions of life in the cities. There is every evidence that an awareness of urban problem now exists that the city is becoming a more acceptable place to live and that improvement is in the air. The censuses of 1941 states 'city life has begun really to appeal to the ordinary middle class or lower middle class in India because for the first time accommodation within his means and to his taste has become available.' It is correct that urbanisation in U.P. is still in its early stages of the process but it bears a resemblance to the history of urbanisation in other places. The Map No. 11 facing this page shows the distribution of working population into rural and areas of U.P.

Coming to the distinction between urban and rural areas of U.P. it may be stated that even in the very early stages of urban growth difference did exist. In 1901 the total population of 19 large cities of U.P. formed 4.2 per cent of the state's then total population. It is strange to note that the proportion

of actual workers in these 19 cities to the total number exceeded this proportion. Agricultural workers formed 0.8 per cent of the total workers in cities. Smiths and carpenters were proportionately more in cities than in rural areas. 44 per cent of males in rural and 30 per cent in urban areas were workers. The table below shows the percentage of population engaged in different occupations in rural and urban areas in 1901.¹

Table No. 5.17

TABLE SHOWING OCCUPATIONAL PATTERN OF WORKING POPULATION IN RURAL AND URBAN AREAS

Details of occupation	% of actual workers to total population	% of actual workers in	
		Cities	Rural areas
1. Civil service of state	0.1	26.7	73.3
2. Services of local bodies	0.02	33.0	67.0
3. Village services	0.2	1.5	98.5
ORDERS:			
a. Administration	0.4	13.3	45.6
b. Defence	0.06	54.4	45.6
c. Provision and care of animals	0.6	11.9	88.1
d. Services of Natives and Foreign States	0.005	2.9	97.1
e. Agriculture	31.7	7.04	92.96
f. Food, drink and stimulants	2.7	9.8	90.2
g. Light, Firing and Forage	0.1	16.7	83.3
h. Building	0.09	30.6	69.4
i. Vehicle and Vessels	0.004	11.7	88.3
j. Supplementary Requirements	0.2	19.3	80.7
k. Textile, Fabrics and Dress	1.9	8.0	92.0
l. Metals and Precious Stones	0.5	11.4	88.6
m. Glass, Earth wares and stone work	0.4	2.9	97.1
n. Cane, wax, Matting and leaves	0.1	4.6	95.4
o. Drugs and Dyes	0.1	11.9	88.1
p. Leather etc.	0.3	10.9	89.1
q. Commerce	0.2	30.5	69.5
r. Transport and storage	0.4	15.05	84.95
s. Learned and Artistic Profession	0.5	14.5	85.5
t. Sports	0.01	8.2	91.8
u. Earthwork and General labour	3.6	6.3	93.7
v. Indefinite and Disreputed works	0.1	11.3	88.7

1. Census of U.P. 1901, Table VI, p. 276.

Along with the increase in urban growth the occupational pattern of population has also undergone considerable changes. The most significant change has taken place during the post-independence period. In the first census after political independence, i.e., in 1951 the livelihood pattern of population was classified as under:

Classification of Livelihood Pattern

- I. Cultivators of owned land.
- II. Cultivators of land wholly or mainly unowned.
- III. Cultivating labourers.
- IV. Non-cultivating owners of land and agricultural rent receivers.
- V. Production other than cultivation.
- VI. Commerce.
- VII. Transport.
- VIII. Other services and miscellaneous resources.

Occupational engagement of rural and urban population into above described eight livelihood classes has not remained uniform in different economic regions of U.P. in the year 1951. The table below makes the point clear in this respect:-

Table No. 5.18

TABLE SHOWING ENGAGEMENT OF POPULATION INTO AGRICULTURAL AND NON-AGRICULTURAL CLASSES OF LIVELIHOOD

Area/Region	Total popula- tion ('00,000)	Cultivators of			Non- cul- tivating owner of land	Pro- duction	Comm- erce	Trans- port	Other services
		Owned land	Un- owned land	Agri- cultu- ral la- bourers					
1. Hill	39	55	0.7	11.0	1.3	0.8	0.5	1.5	1.0
2. Western	228	56	0.3	0.5	1.3	11.0	0.7	1.7	14.7
3. Central	161	63	0.6	0.5	0.6	0.8	0.5	1.3	11.0
4. Eastern	179	69	0.7	0.6	0.2	0.6	0.4	1.0	0.7
5. Bundelkhand	25	73	0.5	0.1	0.1	0.5	0.4	0.9	11.0
6. Total (U.P.)	632	62	0.51	0.6	0.2	0.8	0.5	0.1	11.0

This table is indicative of the fact that invariably in every economic region approximately 60 per cent of the total population was engaged in cultivation of owned land. Non-cultivating owners of land did not exceed more than 1.5 per cent in any of the economic region. The livelihood classes varied not only from region to region but it also varied between rural and urban areas as well. These rural and urban livelihood classes are shown in the following table:

Table No. 5.19

TABLE SHOWING RURAL URBAN COMPOSITION OF POPULATION ENGAGED IN AGRICULTURAL AND NON-AGRICULTURAL LIVELIHOOD CLASSES

Area/Region	Total population ('00,000)		Percentage of population engaged in																	
			Cultivators of owned land		Cultivators of unowned land		Cultivating labourers		Non-cultivating owners of land		Production		Commerce		Transport		Other services and Miscellaneous			
	R	U	R	U	R	U	R	U	R	U	R	U	R	U	R	U	R	U		
1. Hill	34 (60.9)	5 (14.1)	62.7	11.7	8.0	2.5	13.0	0.9	1.4	1.1	6.1	22.7	2.1	21.2	0.6	7.2	6.2	32.0		
2. Western	185 (81.4)	42 (18.6)	66.9	9.2	3.7	1.7	6.2	1.2	1.2	1.6	8.1	24.0	2.9	22.5	0.8	6.0	10.3	34.0		
3. Central	139 (86.0)	23 (14.0)	72.7	5.1	6.4	1.2	5.7	0.3	1.4	1.2	4.5	28.0	2.2	20.9	0.5	6.4	6.7	37.0		
4. Eastern	166 (92.8)	13 (7.12)	73.7	11.4	6.9	2.4	6.9	1.7	0.5	1.4	4.4	25.7	2.2	22.1	0.6	6.1	4.9	29.4		
5. Bundelkhand	22 (88.3)	3 (11.7)	81.9	3.5	5.3	0.8	1.2	0.1	0.2	0.5	3.8	15.4	1.3	21.3	0.3	5.2	6.0	53.4		
Total (U.P.)	546	86	70.8	8.4	5.7	1.7	6.5	1.0	1.0	1.4	5.8	24.9	2.3	21.9	0.6	6.2	7.3	34.6		

R = Rural : U = Urban

The Map No. 12 facing this page shows distribution of rural workers into different economic region as a percentage of total rural workers.

The above figures show that total rural population has been far in excess of urban population invariably in every region and so it happened in livelihood class I, II and III. In livelihood class IV the percentage of rural and urban population has been more or less identical yet number of rural workers was more than urban one in absolute terms. In rest of the livelihood classes i.e., V, VI, VII and VIII the percentage of urban population was far in excess of rural population which goes to prove that U.P.'s economy is still dominated by agriculture and is predominantly rural in character except in livelihood classes which suit only urban areas. The economy did not change much for the next ten years inspite of five yearly development plans. 1961 figures detailing changes of livelihood classes remained in the close proximity of 1951. Divided into industrial categories of occupations the engagement of workers was as under during the post-independence period.

Table No. 5.20

TABLE SHOWING OCCUPATIONAL ENGAGEMENT OF WORKERS DURING POST-INDEPENDENCE PERIOD ('000).

Categories of workers	1951	1961	1971
I	17946	18428	15911
II	2018	3261	5497
III	233	172	214
IV	---	1801	2841
V	1973	801	1024
VI	162	214	273
VII	1069	1068	1058
VIII	310	399	510
IX	2685	2710	1089
Total I - IX	26397	28850	28417
X	36819	44896	59948

Source : Census population Totals (India) 1961, No. 411 and 413.

Distributed into different economic regions the percentage of urban workers to total urban workers is shown in the Map No.21 facing this page, NO. 266.

IV - Economic Pattern of KAVAI Towns

It has been noticed earlier that during the later half of the period of this study there was considerable accentuation of the process of urbanisation. The urban proportion in the population of the State as a whole moved up from 11 percent in 1901 (9 percent in 1872) to 14.69 percent in 1971. The percentage of urban population to the total population has not followed a very

rapid increase during the last one hundred years. It may however be mentioned here that the definition of urban areas has also not remained uniform and in most cases it was left to discretion of the census authorities to treat a particular place as urban or non-urban. Then few princely states in British India in order to enjoy more respect treated some of their rural territory as urban but that too did not remain uniform from census to census. All this resulted in differences in percentage variation of population from decade to decade as is clear from the table below:

Table No. 5.21

TABLE SHOWING PERCENTAGE VARIATION IN URBAN POPULATION OF KAVAI TOWNS OF UTTAR PRADESH DURING DIFFERENT CENSUS DECADES

Census decades	Percentage variation in the population	
	Urban areas	KAVAI Towns
1872 - 1881	- 7.0	- 3.5
1881 - 1891	- 7.5	+ 0.8
1891 - 1901	- 8.1	- 8.2
1901 - 1911	- 8.98	- 3.9
1911 - 1921	+ 0.61	+ 0.6
1921 - 1931	+ 12.81	+ 14.0
1931 - 1941	+ 26.00	+ 47.9
1941 - 1951	+ 22.93	+ 34.4
1951 - 1961	+ 9.90	+ 34.9
1961 - 1971	+ 36.81	+ 25.1

As a result of difference in the definition of an urban area, town area and city area the population of these places also varied considerably. In its effect the urban population

has been higher than that of city population and the city population has always been higher than the total population of KAVAL towns of U.P. The table below displays figures of total population of Uttar Pradesh in urban, city and KAVAL town areas during different census years:

Table No. 5.22

TABLE SHOWING DISTRIBUTION OF POPULATION OF U.P. INTO URBAN, CITY AND KAVAL TOWN AREAS

Census years	Urban Population		City Population		KAVAL town Popula- tion	
	Nos ('000)	% of total population	Nos ('000)	% of total population	Nos ('000)	% of city population
1872	4032	9.6	1426	20.9	1158	81.2
1881	4796	10.9	1379	21.7	1117	80.9
1891	4968	10.8	1332	22.7	1126	84.5
1901	5392	11.09	1286	23.9	1034	80.4
1911	4915	10.21	1239	25.3	993	80.1
1921	4949	10.58	1252	25.4	999	79.1
1931	5569	11.19	1531	27.5	1140	74.5
1941	7020	12.42	2621	34.7	1685	64.3
1951	8626	13.64	3908	45.2	2266	57.9
1961	9480	12.85	5760	54.4	3056	59.2
1971	2970	14.00	7019	54.2	3550	50.6

Although KAVAL towns occupy a very important place in the cities of U.P. but they are not the all. The number of Class I cities in U.P. has been constantly increasing since independence. The table below shows the total number of Class I towns and their population in U.P. since 1941.

Table No. 5.23

TABLE SHOWING NUMBER OF CLASS I TOWNS AND THEIR POPULATION SINCE 1941

Census years	No. of Class I towns	Total population of Class I Towns
1941	12	2621107
1951	14	3340999
1961	17	4768911
1971	22	7058439

The KAVAL town population in U.P. differed widely not only in the size of population as rates of its growth but also differed considerably with city and urban population in respect of its age and sex composition which are principal determinant of the occupational structure of population. This is one of the main reasons that occupational structure of KAVAL towns considerably differs from that of city population. The table below shows the sex ratio of city and urban population of U.P. in different census years.

Table No. 5.24

TABLE SHOWING INDICES OF THE SEX RATIO OF URBAN AND CITY POPULATION IN U.P. WITH 1901 AS BASE (1901 = 100)

Census years	Indices of sex ratio of	
	Total urban population	Total city population
1901	100	100
1911	93	94
1921	90	89
1931	88	88
1941	87	87
1951	90	91
1961	89	93
1971	97	95

Age composition of the population directly determines the availability of labour supply of any region. The proportion of population in the effective age group shows the number of persons or percentage of population available for work though it is correct that actual participation ratio differs from the ratio of effective population. The percentage of population in the effective age group of KAVAL towns is displayed in the following table;

Table No. 5.25

TABLE SHOWING AGE COMPOSITION OF MALE AND FEMALE POPULATION AS PERCENTAGE OF TOTAL MALE AND FEMALE POPULATION IN KAVAL TOWNS OF U.P. DURING THE CENSUS YEAR OF 1961

Age-groups	Percentage of Population in KAVAL towns of									
	Kandur		Agra		Varanasi		Allahabad		Lucknow	
	M	F	M	F	M	F	M	F	M	F
All ages	100	100	100	100	100	100	100	100	100	100
0 - 14	36	43	41	44	37	42	37	42	36	41
15 - 59	60	53	54	51	57	52	58	53	59	54
60 and over	4	4	5	5	6	6	5	5	5	5

Taking all relevant factors into account the actual participation of the working population of Uttar Pradesh into different industrial categories of occupation in KAVAL towns of U.P. stood as under in the census year 1961.

Table No. 5.26

TABLE SHOWING DISTRIBUTION OF WORKING POPULATION OF KAVAI TOWNS OF U.P. INTO DIFFERENT industrial categories.¹

Industrial categories of workers	Total No. of workers in the census of 1961 ('000)
I	17
II	5
III	6
IV	71
V	212
VI	26
VII	167
VIII	79
IX	273
I - IX	863

1. Figures have been calculated on the basis of data published in 1961 Census Final Totals (India).

V - Future Prospects of Urbanisation in U.P.

It has already been noted earlier that bigger towns of U.P. are growing at a faster rate than smaller towns. Then as a result of migration of rural population to urban areas in search of employment urban areas are getting over crowded creating more and more problems of congestion, sanitation and pollution. It has also been proved beyond doubt that urban population is facing larger unemployment than rural areas because they have nothing to fall back upon in which they could get even under-employment. Hence there is need to evolve sound economic policy for urban areas in such a way that job opportunities increase at a rate

faster than the rate of increase in effective population.

One of the difficulties in thinking about and coping with our urban problems is that we do not want to leave outmoded concept to solve entirely new problems. The development of new economic problems and particularly those of economically gainful engagement of population require re-examination of our entire cultural surroundings. Previously the cities were planned with agricultural bias and certain percentage of urban population always depended on agriculture and allied occupations and in this way the socio-economic pattern of urban areas resembled with that of rural areas. But in view of ever growing population the problem of congestion has come to the upper layer and needs solution by expansion which means drastic curtailment in agricultural land of urban areas.

It may not be proper to discuss here once again the process of urbanisation but it may be stated that in pre-industrial civilisation the scale and proportion of urbanisation were much less important than among industrial societies. The large scale urbanisation is merely a product of social and economic process operating in nineteenth and twentieth centuries. The upsurge of cities results from demographic processes which are familiar everywhere. The urbanisation seems to be the snowballing of the large cities at the expense of rural areas and smaller towns. The concentration of population follows a well defined order which is as follows:¹

1. Towns emerge but the increase rate of the rural population

1. Clarke, J.I., Population Geography, p. 48.

equals or exceeds the increase rate of the urban population. The urban rural ratio is greatly influenced by food supply and by transportation technology.

2. The rate of increase of urban population exceeds that of the rural population largely because of rural urban migration, although the impetus is provided by improvement in food supply and transportation. This stage also reflects the accumulations of the slow urban growth of stage I and thus fairly large cities appear with a high degree of division of labour.

3. Rural urban migration exceeds the diminishing natural increase of the rural population which experiences an absolute decline.

4. As the volume of rural-urban migration dwindles, the large centres exert a powerful attraction upon small towns which become the new source of migrants and their population ultimately declines.

5. Concentration does not persist until all are congregated in one huge urban centre. Improvement in communication helps in outward movement from areas of high density. Areal distribution of population is thus more even because of the increased population of areas distant from the major population centres. It is also possible that decentralisation within urban areas may continue along with concentration in major town areas.

The growth of large cities (KAVAL towns) in U.P. has been as remarkable as the general process of urbanisation. These towns together include in them nearly 20 per cent of the total urban population of Uttar Pradesh. One problem still remains to be solved when we consider the occupational engagement of people in urban areas and that is whether one should consider the city

proper or its agglomeration. The U.N.O.'s Demographic year book defines an urban agglomeration 'as including the sub-urban fringe or thickly settled territory lying outside of but adjacent to the city boundaries.'¹ The growth of large agglomeration leads to the formation of composite urban settlements interconnected and inter-dependent. The census authorities of U.P. have listed 22 big cities in U.P. with population exceeding 1,00,000 each. In general the proportion living in large cities is higher in industrialised towns than in semi industrialised or agricultural towns although the correlation is not always clear.

Taking large industrialised countries into account it has been established beyond doubt that millionaire cities are multiplying. On this basis I may concluded that absolute size of large cities in U.P. is also increasing and will increase more rapidly in the near future. This consideration alone leads one to think the question of optimum size of a city for reasons of health, public safety and physical accomodation. The population planners have yet not arrived on any definite conclusion. But as the cities grow we shall have to get used to facing the problems of growing urban size which may cause more and wide spread unemployment as well as maldistribution of population into different occupations.

1. U.N.O's Demographic year Book, 1964. T. 8

CHAPTER VI

PERSONAL CHARACTERISTICS OF THE POPULATION

Uttar Pradesh is among the more densely populated and less urbanised and less industrialised States of India. In 1961 only 13 percent of the total population was living in urban areas as compared to 17 percent average for India as a whole. Low per capita income of Uttar Pradesh is attributable to a less efficient employment of labour in the non-agricultural activities as well as to less productive agricultural sector. The working force is less productively employed and the proportion of population which is economically active is relatively small, i.e., only 39 percent in Uttar Pradesh as against all India average of 41 percent for the year 1961¹. The age structure of the population of Uttar Pradesh is not materially different from that of India and open unemployment is even lesser² but the lesser prosperity of the region is due to less efficient engagement of larger section of the population.

The occupational engagement of the people is not as gainful as in other regions which is a potent contributor to lesser income. Infact the occupational engagement of the population into

1. In 1971 this percentage was further reduced to 32.2.

2. NSS Report No. 15.

different economically gainful activities depends among other factors to a very great extent on the personal characteristics of the people. I have already stated earlier as to how occupational pattern of the population of Uttar Pradesh has been influenced by physical, social and cultural environments which surround the people. Here in this chapter in the pages that follow an attempt has been made to examine the influence of the personal characteristics of the population on its occupational engagement. Under the group of the personal characteristics of the population I have included only such factors which are exclusively personal, i.e., age, sex and education. These factors collectively determine the supply of labour force available to different occupations. I have also tried to correlate these factors with the changing pattern of different occupations into which Census authorities of Uttar Pradesh have classified the working population. The table below gives a broad outline of the population of Uttar Pradesh based on its personal characteristics:

Table No. 6.1

TABLE SHOWING POPULATION OF UTTAR PRADESH DIVIDED BY AGE, SEX AND EDUCATION DURING THE PERIOD 1872 - 1971

(Figures in '000)

Census years	Total population	Age structure			Sex		Literacy	
		0 - 14	15-59	60 & over	Males	Females	Lite-rate	Illite-rate
1872	42002	16140	24126	2066	22237	19766	930	41072
1881	44253	17700	25303	2250	17082	21216	1113	43140
1891	46365	17272	26652	2434	24303	22062	1296	45069
1901	48625	17838	27915	2618	25098	23527	1479	46146
1911	48155	17693	29232	2535	25143	23009	1636	46519
1921	46669	17693	26522	2265	24451	22219	1718	44951
1931	49777	10207	28425	1980	26147	23629	2309	47468
1941	56532	21455	31866	2565	29639	26893	4728	51804
1951	63216	24240	35206	3660	33099	30117	6825	56391
1961	73746	29850	39228	4668	38634	35122	12690	61056
1971	88365	35640	43250	9475	46897	41403	19110	69255

Variation between 1872 - 1971 :

Total Population (88365 - 42002 = 46363) 110.24 per cent

Effective Population (43250 - 24126 = 19124) 79.02 per cent
(i.e. 15 - 59 years)

Male Population (46897 - 22237 = 19124) 113.69 per cent

Female Population (41403 - 19766 = 21637) 110.00 per cent.

Literate Population (19110 - 930 = 18180) 1954.49 per cent.

Population of Uttar Pradesh Divided by Age, Sex and Education

Statistical figures in the above table provide the detailed picture of the manpower of Uttar Pradesh during the last hundred years. The effect of the personal characteristics of the population on its occupational structure has been analysed in the following pages under three distinct categories of (i) Age structure, (ii) Sex structure and (iii) Educational structure.

I - Age Structure

The age structure of the population determines the supply of the labour force available for participation in the working population. The proportion of the population in the labour force increases with age upto 45 years but tapers off later. People of all ages do not form part of what is called working population which engages itself in the production of goods and services for the nation. The power to produce economic goods and services is a function of age although it can not definitely be asserted owing to strong exceptions on both the minimum and maximum sides. However, in view of the minimum age for work of 14 years fixed under the Indian Factories Act, the Constitutional directive to provide free and compulsory education to all children upto the age of 14th and the convention followed in other countries for the measurement of manpower, 15th year has been considered as the minimum age of entry into the labour force. The maximum age of retirement from labour force would be placed at 60 in view of prevailing age of retirement in Government, semi-Government and private services, recommendations of the Central Pay Commission, preponderance of self-employed activities, findings of the Directorate of National Sample Surveys regarding the high proportion

of economically active population in upper age brackets, prospective increase in effectiveness of life, desirability of providing old age benefits and social security etc., beyond 60 and the convention followed by foreign economists in their studies on labour force the age group of 15 - 59 has been taken as the working age span. For persons outside this age-group, i.e., people of the age of 60 and over it is socially and economically desirable to conserve their energies.

Thus the population in the age group 15 - 59 is available for participation in the labour force and is called effective population. Objectively speaking labour force is that part of the population which has the power to produce economic goods and services and is willing to offer its services in the labour market. Theoretically the population in the effective age group should correspond with the population participating in the labour force but in actual life it is never so. The population which actually participates in the labour^{force} is called working population. Thus based on eligibility and actual participation in the labour force we have three distinct categories of population viz., (i) total population, (ii) effective population and (iii) working population. The total population of any region is the largest when compared with effective population. Based on the supposition that all those available for work do not work, the working population should be lesser than effective population but it is not so always. Depending on a variety of demographic, economic and social factors the working population may be lesser or even more than the effective population of the region concerned.

The dis-equilibrium between effective and working population

may be due to the fact that some people from the population outside the effective age-group are always willing and do participate in the labour force, i.e., children below 15 and aged persons above 60. Similarly some people from the effective age group do not participate in the labour force, e.g., whole-time students, ladies, people living on rentals and others non-productive sources of income. Thus based on the age structure and actual participation in the labour force the inhabitants of any region can be conveniently grouped into above described three broad categories of population. In the total population are included all the persons inhabiting the particular region, i.e., all men, women and children of all ages irrespective of the fact whether these people do some economically gainful work or do not. The total population of a region does not tell us anything other than the fact that the region concerned has to support that much of population. Divided into broad age groups we know the population available for work. This age group popularly called 'effective population' discloses only the eligibility of the people to work but does not tell us the population actually engaged into gainful activities. The people actually engaged into some economically gainful activity or another form what is termed as 'working population'.

The population of Uttar Pradesh when divided into three broad categories of total, effective and working population stood as follows in different census years from 1872 to 1971.

Table No. 6.2

TABLE SHOWING POPULATION OF UTTAR PRADESH DIVIDED INTO TOTAL, EFFECTIVE AND WORKING AGE GROUPS DURING THE PERIOD 1872-1971.

(Figures in '000)

Census years	Total population	Effective age group population	Working population of all ages
1872	42002	24126	19308
1881	44253	25389	20642
1891	46365	26652	21975
1901	48625	27915	23308
1911	48155	29232	24641
1921	46669	26522	24360
1931	49777	28425	24588
1941	56532	31866	23943
1951	63216	35206	26397
1961	73746	39228	28850
1971	88365	43250	28417

Variation in Working Population during the period 1872 - 1971

(28417 - 19308 = 9109) 47.2 per cent.

The figures in the above table are shown in the diagram facing this page.

The detailed analysis of the above table shows that during the course of last one hundred years, i.e., from 1872 to 1971 the largest increase has been in the total population wherein the percentage variation recorded 110.2% increase but the percentage increase in the effective age group population has been only 79.3%. The lowest increase has taken place in the working popula-

tion which recorded a total increase of only 47.2 per cent during the same period of one hundred years. Divided into different economic regions of the State of Uttar Pradesh the total percentage variation into different census years has been as under:

Table No. 6.3

TABLE SHOWING PERCENTAGE VARIATION IN TOTAL POPULATION OF DIFFERENT ECONOMIC REGIONS OF UTTAR PRADESH DURING THE PERIOD 1872 - 1971.

Region	Total percentage variation
Uttar Pradesh	+ 110.3
1. Hill	+ 119.5
2. Western	+ 110.5
3. Central	+ 99.5
4. Eastern	+ 110.2
5. Bundelkhand	+ 145.0

The percentage variation in the increase of total population of different economic regions during the last hundred years has been shown on the Map No. 13 facing this page.

The detailed decennial percentage variation in the total population of Uttar Pradesh during different census years of the last one hundred years has been as under:

Table No. 6.4

TABLE SHOWING DETAILED DECENNIAL PERCENTAGE VARIATION IN POPULATION OF UTTAR PRADESH DURING THE PERIOD OF 1872 - 1971

Census Decades	Decennial percentage variation (+ or -)
1872 - 1881	+ 5.3
1881 - 1891	+ 6.3
1891 - 1901	+ 1.7
1901 - 1911	- 1.0
1911 - 1921	- 3.1
1921 - 1931	+ 6.7
1931 - 1941	+ 13.6
1941 - 1951	+ 18.8
1951 - 1961	+ 16.7
1961 - 1971	+ 19.8
Total variation during 1872 - 1971	+ 110.3

As would be disclosed from the table below there has been no uniformity between the percentage variation of the State as a whole and the variation in different economic regions of Uttar Pradesh. The decennial percentage variation figures as arranged in the following table speak for themselves and show not the least correlation with the State's average variation rather there exists a sort of inverse correlation between the two figures;

Table No. 6.5

TABLE SHOWING PERCENTAGE VARIATION IN THE POPULATION GROWTH OF DIFFERENT ECONOMIC REGIONS OF UTTAR PRADESH DURING DIFFERENT CENSUS DECADES

Census Decades	Percentage variations in				
	Hill Region	Western Region	Central Region	Eastern Region	Bundelkhand Region
1872-1881	- 0.09	- 0.47	+ 0.16	- 0.02	- 0.12
1881-1891	- 0.13	- 0.69	+ 0.27	- 0.01	- 0.11
1891-1901	- 0.07	- 1.09	- 0.38	- 0.39	+ 2.38
1901-1911	- 0.02	- 1.37	+ 0.53	- 0.16	- 2.51
1911-1921	- 0.63	- 6.30	+ 4.90	- 0.40	-14.90
1921-1931	+ 8.30	+ 6.80	+ 7.30	+ 5.10	+ 8.30
1931-1941	+13.70	+14.20	+12.00	+14.20	+13.90
1941-1951	+12.40	+12.10	+11.60	+12.80	+ 7.40
1951-1961	+20.90	+17.20	+14.20	+16.10	+22.40
1961-1971	+22.20	+21.86	+16.90	+17.20	+24.06

N.B.: Calculations are based on average increase or decrease in regional population over different decades.

Growth of Labour Force:

There are numerous factors which influence the growth of labour force of any region or area and among these factors the most important one is the rate of population growth. In Uttar Pradesh there has been a high birth rate no doubt but this was followed by high death rate also. The infant mortality rate is also very high in Uttar Pradesh. The higher death rate in this State is the result of poor health, low nutritional standards and inadequate medical and public health facilities. The principal determinant of the population growth can be projected for

any given period to know the future growth trend. Apart from birth and death rates there are numerous other factors also which determine the size of the labour force. Important among such factors are proportional change in the middle part of the age group which constitute the bulk of the working force, changes in the female participation rates, spread of education and changes in the rural urban distribution of the population. It is because of the combined action of the numerous factors leading to the growth of labour force that the percentage variation of working population has significantly varied from the percentage decennial variation of the total population in different census years. The following table makes this difference absolutely clear and precise:

Table No. 6.6

TABLE SHOWING DECENNIAL PERCENTAGE VARIATION IN THE GROWTH OF TOTAL AND WORKING POPULATION OF UTTAR PRADESH DURING THE PERIOD 1872 - 1971

Census decades	Percentage decennial variation in the growth of	
	Total population	Working population
1872-1881	+ 5.3	+ 6.9
1881-1891	+ 6.3	+ 6.5
1891-1901	+ 1.7	+ 6.1
1901-1911	- 0.9	+ 5.7
1911-1921	- 3.13	- 1.1
1921-1931	+ 6.67	+ 0.94
1931-1941	+13.57	- 2.6
1941-1951	+18.8	+10.3
1951-1961	+16.7	+7 .0
1961-1971	+19.8	+10.1
Total variation during 1872-1971	+110.3	+63.16

The percentage variation figures of the total and working population has been plotted on the graph facing this page to point out the comparative growth position of the two populations. These figures make it further clear that population growth of Uttar Pradesh has not remained steady and uniform from decade to decade. The variation in different economic and administrative divisions of the State also do not correspond with the State average in this respect. Even the decennial percentage variation of the total population does not correspond with the decennial percentage variation of the working population from decade to decade as is clear from the table referred to above.

In the State of Uttar Pradesh in the year 1971 the effective age group population formed 48.9 per cent of the total population which did not correspond with the working population forming only 32.2 per cent of the total population and 72.3 per cent of the effective population. It is rather surprising to know that the effective population which formed 57.4 per cent of the total population in the year 1872 declined to 48.9 per cent in the year 1971. This change is indicative of the fact with regard to the change in the age composition of the total population of Uttar Pradesh during the last one hundred years. The decrease has been recorded not only in the effective population but the working population has also followed the same trend of the same magnitude.

In the year 1872 the working population formed 45.97 percent of the total population which declined to 32.28 percent in 1971 and thus recording a total decrease of 13.7 percent which favourably compared with the decrease of 8.5 percent in the effective

population as a percentage of the total population. The total decrease in the working population as a percentage of effective population has been only 7.8 percent during the total period of last one hundred years. It is really very strange that inspite of the relatively low percentage ratio of the working age group population in the labour force the absolute size of the population has been very high particularly during the post-independence period. The table below exhibits the percentage of effective population to the total population and the percentage of working population to the total and effective population during different census years of the last one hundred years:

Table No. 6.7

TABLE SHOWING PERCENTAGE OF EFFECTIVE AND WORKING POPULATION AS PERCENTAGE OF TOTAL AND EFFECTIVE POPULATION DURING DIFFERENT CENSUS YEARS

Census years	% of effective population to total population	% of working population to total population	% of working population to effective population
1872	57.4	45.97	80.1
1881	57.3	46.70	81.1
1891	57.5	47.40	82.4
1901	57.4	47.95	83.5
1911	60.6	51.04	84.2
1921	56.7	52.20	91.9
1931	57.0	47.40	83.0
1941	56.5	42.30	74.9
1951	55.7	41.80	75.0
1961	53.2	38.40	72.2
1971	48.9	32.28	72.3

The Map No. 14 facing this page shows percentage of workers to total population in 1971.

Age distribution of working population :

The labour force participation rate is generally determined by the age structure of the population and is influenced by the extent to which young persons in the effective age group and also outside this group including children take up work. The total percentage variation in the total population of Uttar Pradesh during the last one hundred years has been 110.3 percent but in different age groups it has not been uniform. The detailed percentage increase in different age groups of the population as compared to the total and working population has been as under during the period 1872-1971.

Table No. 6.8

TABLE SHOWING PERCENTAGE VARIATION IN DIFFERENT AGE GROUPS OF THE POPULATION OF UTTAR PRADESH DURING THE PERIOD 1872-1971

Age group of the population	Percentage variation i.e., increase or decrease
Age group 0 - 14	+ 120.00
Age group 15 - 59	+ 79.00
Age group 60 and above	+ 170.00
Working population	+ 47.20
Total population	+ 110.30

Analysing the figures in the above table one can easily conclude that over all percentage increase in the total population has been lesser than the total increase in the population of the effective age group. It means all people in the effective

age group did not participate in the labour force and considering the economic conditions of the country and acute poverty of the masses it cannot be presumed that none outside the effective age group participated in the labour force. Even in the highly advanced countries of the west some people outside the effective age group always participate in the labour force and Uttar Pradesh can never be an exception to this general convention. Generally the working population is always lesser than the population of the effective age group because all the females in this age group never participate in the labour force and so do the people who live on rental income or on other non-productive sources of income.

It may be in very rare circumstances that working population may exceed the figure of the population in the effective age group. The degree of correlation between the population of the effective age group and that of total working population largely depends upon the participation ratio of male and female population in the labour force. The total participation rate in the labour force ranges between 70 to 80 percent in most of the European and Asian countries with the only exception of India and similarly under-developed countries in her neighbourhood. The participation rate of the population in the labour force of India as well as that of Uttar Pradesh does not reach even 50 percent of the Total population. The total male-female participation rate is not uniform in different countries of Asia and Europe as disclosed by the table below:

Table No. 6.9

TABLE SHOWING LABOUR FORCE PARTICIPATION RATIO OF MALES AND FEMALES IN SELECTED COUNTRIES.¹

Country/Region	Year	Participation ratio of		
		Total population (age 15 - 64) %	Male population (age 15 - 64) %	Female population (Age 15 - 64) %
Canada	1951	76.8	92.7	26.3
U.S.A.	1950	74.2	91.8	32.6
France	1954	75.6	91.7	43.3
U.K.	1951	82.9	94.3	40.0
Australia	1947	83.7	92.5	26.5
Japan	1950	78.5	96.4	51.8
India ²	1951	39.1	93.9	41.2
Uttar Pradesh ²	1951	41.8	73.7	27.0
	1971	32.2	52.8	8.8

1. Source : U.N.O. Demographic Year Book 1957 and Census of India Report, 1961, U.P. Census Paper 1971.

2. Calculations for India and Uttar Pradesh are based on the age group of 15 - 59.

Analysing the percentage participation of the population in the total labour force and that of male and female labour force I do not find any positive correlation, rather there exists inverse correlation. It has already been stated earlier that ordinarily the total effective population and the working population should be equal to each other provided everybody in the effective age group takes to work but it is never so. Since every person from the effective age group does not take to work

the working population is derived from different age groups and not only from the effective age group and hence the difference between the two population. The table below shows the age distribution of the working population in the census year 1961.

Table No. 6.10

TABLE SHOWING AGE STRUCTURE OF THE WORKING POPULATION OF UTTAR PRADESH DURING THE CENSUS YEAR 1961

Age groups	Number of workers '000)	% of total workers
Less than 15	1930	7.5
Between 15-59	24401	83.0
60 and over	2516	9.5
All ages	28847	100.0

The figures in the table above which are shown in the diagram facing this page disclose the fact that there is considerable variation and practically no correlation in the labour force of different age groups. The labour supply in the age group 15 - 34 has been the highest¹ because this group consists of young and energetic persons of both the sexes. This age group is closely followed by the age group 35 - 59 with age group 60 and over a close third and that of less than 15 years as the last fourth. An analysis of the age group distribution of the working population into different industrial categories for the census year 1961 bears close resemblance to the previous statement in the sense that the percentage of workers in all the industrial groups of activities is the highest in the age group

1. Detailed age distribution of the working population is shown in Appendix.

of 15 - 59. The table below displays the age group distribution of workers into different industrial categories of occupations for the year 1961.

Table No. 6.11

TABLE SHOWING AGE DISTRIBUTION OF WORKING POPULATION INTO EACH INDUSTRIAL CATEGORY OF OCCUPATION FOR THE CENSUS YEAR 1961

Industrial classification of workers	Total number of workers in the age group of			
	Less than 15 years ('000)	Between 15-59 years ('000)	60 and above ('000)	Age group not specified ('000)
Total population	29850	39228	4668	32
Total workers	1930	24401	2516	36
Category I	1215	15366	1846	--
Category II	336	2749	176	--
Category III	13	146	9	--
Category IV	192	1465	146	--
Category V	32	734	35	--
Category VI	4	200	10	68
Category VII	24	929	110	--
Category VIII	4	383	12	--
Category IX	106	1432	172	--
Non-workers (X)	27920	14827	2120	30

Source: Census of India, Vol. XV, U.P. Part I A (II).

A perusal of the above table clearly discloses that certain number of workers in some industrial categories of occupations have been shown in the age group which has not been specified. This does not mean that some workers are without age, but in all

probability it has been due to lack of precise definition for specific age brackets. Since age statistics of the working population has not been uniformly collected from census to census, it is not possible to make a definite and precise comparison to arrive at a particular trend of age brackets for the working population.

II - Sex Structure

The figures cited in the foregoing tables of age distribution of the total and working population indicate the fact that younger the population lesser the proportion of females in the labour force and older the population the higher the proportion of males in the labour force. Yet the correlation between the two proportions is however not perfect because the statistical information regarding labour force in most of the countries do not take the working age group into consideration and are collected for all ages. Since the younger population of Uttar Pradesh is generally economically and educationally backward, it has quite a large number of children engaged in agricultural activities as unpaid family workers who when counted into the labour force swell its proportion to the total population. If the children below 15 years of age are excluded from the labour force the correlation between workers of different age groups would become perfect. The labour force participation ratio of males and females in different age groups is displayed in the following table:

Table No. 6.12

TABLE SHOWING SEXWISE DISTRIBUTION OF LABOUR FORCE OF UTTAR
PRADESH INTO DIFFERENT AGE GROUPS IN THE CENSUS YEAR 1961

Broad Age-groups	Number of total Labour Force			
	Males ('000)	% of total male workers	Females	% of total female workers
All ages	22447	100.00	6370	100.00
Below 15	1346	4.60	584	9.40
Between 15 - 59	19051	86.30	5350	84.30
60 and above	2080	9.10	436	6.30

Calculations are based on the basis of data published in
census of India 1961 Vol. XV, Part I A(I) U.P.

It appears from the figures in the above table that in the age group 0-14 the big majority of boys are in schools and not in the labour force. The percentage of population in the labour force of this age group is very low which rises sharply in the next age group of 15-34 years when all males must have left education and joined the labour force. If a separate age group of 20 - 34 years is established it will clearly explain the position in this respect. Thus taking other age groups also one can easily make a guess that taking the age group 15 - 59 years about 90 to 95 percent of males are in the labour force. The remaining five percent may be persons physically and mentally incapable of working, beggars, inmates of jails and asylums and also those depending for their livelihood on unproductive sources of income. It has been observed in majority of cases that beyond the age of 34 physical disabilities start to assume

greater importance compelling the victims to leave the labour force. However, persons in Government and Semi-Government service leave their jobs on their retirement at the age ranging from 55 to 65 years. In other countries also where benefits of old age pension are available people do not retire from service till they are very old.

The life pattern among females is similar to those of males in most of the countries to which the State of Uttar Pradesh is no exception. The female proportion in the labour force increases from 15 - 19 age group to 20 - 24 age group and later it declines. The pattern of female participation in the labour force of Uttar Pradesh as well as that of India is generally different from that prevailing in other industrially advanced countries of the world. In advanced countries of Europe and America the female participation is high in early years of working life, then it falls considerably in the middle ages to taper off in the old ages of 45 to 64 years. This position is detailed in the following table for some selected countries;

Table No. 6.13

TABLE SHOWING PERCENTAGE OF FEMALE POPULATION IN THE TOTAL LABOUR FORCE IN SELECTED COUNTRIES AROUND 1951.¹

Country/Region	Year	Percentage of females in the total labour force in the age groups of			
		15-34	35-59	60 & over	All ages
Canada	1951	48.0	24.0	6.0	26.3
U.S.A.	1950	51.0	38.0	8.0	40.0
U.K.	1951	59.0	39.0	7.0	32.6
Australia	1947	63.0	22.0	4.0	26.5
India	1951	25.0	40.0	15.0	24.0
Uttar Pradesh	1951	22.0	34.0	17.0	22.0
	1971	--	--	--	12.8

1. Figures calculated on the basis of data published in ILO year Book 1958 and Census of India Report for 1951.

The difference in the life pattern of women in U.P. (India) and that of women in advanced countries of the west is mainly because of social and cultural differences. In advanced industrial countries of the west girls generally enter into the labour force immediately after completing their education. Marriage leads many females to withdraw from the labour force atleast when they have young children. As their children grow old they re-enter the labour force to withdraw finally when their age advances. On the contrary very few single women earn in India and this factor rather than their being in educational institutions explains their low participation rate in the labour force while they are in their teens. The female percentage in the labour force is very negligible in 0 - 14 age group but slightly increases in the age group 15 - 35 when young children are great hindrance even in this age group. As the age advances female participation in the labour force also increase.

It is rather surprising that female participation in the labour force of U.P. is not affected by the reason of marriage. The participation rate of married women in U.P. is six times as high as that of unmarried girls. The participation rate of widowed women is still higher as it is partly convenient and partly necessary to support themselves and their children. Since the incidence of widowhood increases after 25 the participation rate of women in the labour force also increases in the age group after 25 as compared with their earlier age groups. Women generally leave the labour force in their middle forties when they develop physical disabilities and their children grow to support them. Hence in the age group 35 to 59 the female parti-

cipation rate falls to a low level. The general rules of female participation in the labour force in agriculture and household occupations do not apply wherein women generally do not retire till they are too old to work and this explains the higher participation rate in Uttar Pradesh in higher age groups in comparison to other regions and countries outside India. The distribution of male workers to total male population is shown on the Map No. 15 facing this page. The table below shows percentage distribution of males and females in the working population of Uttar Pradesh during the last one hundred years:

Table No. 6.14

TABLE SHOWING PERCENTAGE DISTRIBUTION OF MALES AND FEMALES IN THE WORKING POPULATION OF UTTAR PRADESH DURING THE PERIOD 1872-1971

Census years	Working population as % to total population	Male workers as % of total working population	Female workers as % of total working population
1872	46.0	88.00	12.00
1881	46.7	86.00	14.00
1891	47.4	80.00	20.00
1901	48.0	74.00	26.00
1911	51.0	68.00	32.00
1921	52.2	67.00	33.00
1931	47.4	69.00	31.00
1941	42.3	67.00	33.00
1951	41.8	73.00	27.00
1961	38.4	78.00	22.00
1971	35.4	83.00	17.00

Sex Ratio of Working Population :

The labour force participation ratio of males and females depends on the size and sex composition of the population. It has already been stated about the age composition of the working population and it may not be very appropriate to repeat the same here again. As to the sex ratio of the population of Uttar Pradesh it stood as under during different census years:

Table No. 6.15

TABLE SHOWING SEX RATIO OF THE TOTAL RURAL AND URBAN POPULATION OF UTTAR PRADESH DURING THE PERIOD 1872-1971.

Census years	Sex ratio of the population		
	Total population	Rural population	Urban population
1872	920	990	985
1881	925	978	972
1891	930	958	943
1901	937	940	917
1911	915	922	853
1921	909	919	825
1931	904	917	807
1941	907	922	805
1951	910	925	899
1961	909	924	812
1971	883	895	821

The sex ratio of the working population is materially different from the sex ratio of the total population ^{as shown} ~~because~~ in diagram No. 7A facing this page. This is due to ~~of~~ non-participation of majority of children, females and aged

people in the labour force particularly in urban areas. In rural areas there may not be much difference when the percentage of female workers to total working population and the percentage of females to total population is concerned. As it has been already analysed earlier that the sex ratio does not bear uniformity even in the working population of KAVAI towns (Kanpur, Agra, Varanasi, Allahabad, Lucknow) which bear similar socio-cultural characteristics. Analysing the details of the sex ratio one gets convinced that the sex ratio of the working population depends on the degree of socio-cultural development of the region and economic needs of the family. This is a fact that in culturally more developed societies female participation in working population is lesser than in less developed districts as compared to more bigger and culturally more advanced cities of Uttar Pradesh. But even in highly developed areas pressed by their economic needs women resort to all sorts of manual and physical labour rather to remain in their homes and starve.

The disparity is clearly noticed in the participation rates of males and females in different economic regions. The Map No. 16 facing this page shows female workers as percentage to total female population. The table below discloses percentage of female workers to total workers in different economic regions.

Table No. 6.16

TABLE SHOWING THE PERCENTAGE DISTRIBUTION OF FEMALE WORKERS TO TOTAL WORKERS IN DIFFERENT ECONOMIC REGIONS OF U.P.

Regions	Percentage of female workers to total workers
1. Hill	38.9
2. Western	3.9
3. Central	8.7
4. Eastern	18.3
5. Bundelkhand	14.0
Total (U.P.)	12.8

Many regions have shown a downward trend at times in the employment of children below 15 years. The Directorate of the National Sample Surveys in India reports the participation rate of 14 percent for male children in rural areas and 6 percent for male children in urban areas in Uttar Pradesh. The difference in the economic development of rural and urban areas is mainly responsible for this difference in labour force participation of children below 15 years. It is estimated that the percentage of working population will decline further both in rural and urban areas along with improvement in the economy and expansion of education. The development of education has lasting effect on reducing male participation in the labour force in the age group 15 - 20 because school going and working can not be carried on simultaneously. In the Block Development and Community Development areas with a system of work and training the male participation in the labour force is considerably higher. In rural areas the participation rate is high because

of lack of adequate facilities for attending schools. The concentration of the facilities of higher education is also responsible for lower participation rate of male children and young persons in urban areas.

As to the employment of adult male workers it is noticed that more than 90 percent adult males have participated in the labour force and their participation does not materially differ from region to region according to the stage of industrialisation and economic development. The lesser the facilities of old age benefits and retirement benefits, the higher will be the participation of males in advanced age group.

Contrary to males the labour force participation rate of females varies from region to region and even in urban and rural areas of the same region based on cultural, social and economic characteristics of the region concerned. In urban areas where culture and tradition discourages participation of women their participation rate is low. In areas where there is no such restriction, the difference in participation rate can be explained by differences in the industrial distribution of population and the varying importance of different patterns of economic organisation. At times this difference in female participation rate may arise due to differences in economic classification of paid and unpaid workers.

Going into the historical trend of female participation rate in different regions and countries outside India it has been satisfactorily proved that over times there has been a steady trend of higher participation in U.S.A., Canada, Bombay, Madras

and Delhi. In brief it can be stated that female participation rates in different age groups are affected by social and cultural attitudes of married and unmarried women to work, school leaving age, marriageable age, economic advancement of the region and cultural environment of its inhabitants. In case of married ladies the economic status of the husband is inversely related with participation of wife but taking the region or country as a whole no close relationship has been found between economic prosperity of the nation and decreasing participation of women in the labour force. The female participation rate in the labour force of any area during the short period is mostly guided by the availability of employment opportunities rather than by any other consideration.

Taking the country as a whole the participation rates of males in rural and urban areas stood at 93.33 percent and 86.54 percent respectively. It is expected that increase in educational opportunities would tend to reduce the participation rate but the same may be compensated by increase of employment opportunities and increase in retirement age in urban areas. In rural areas also increase in education, change in the social and economic pattern and decline in infantile mortality may have a downward pull on the participation rate. In urban areas the factors leading to decline in the participation rate of females would be the same as in rural areas but increase in employment opportunities and increased participation of unmarried girls would definitely tend to increase the participation rate. As a result of the combined action of all the forces which may tend to increase or decrease the participation rate of males and

females in the labour force of the region concerned its total labour supply unless influenced by increased birth or death rate may remain uniform over a fairly long period of time.

III - Educational Structure

In accordance with the statistical information available through the Census Reports of India and that of Uttar Pradesh from 1872 onwards it can be safely inferred that education has little effect so far overall participation of males in the labour force is concerned. Yet it is possible that educated labour force may be more in some occupations than in others such as in manufacturing, administrative and clerical jobs, commerce and transport. Educated labour force may be comparatively lesser in other sectors of economic activities. It may also be inferred from the literacy figures that rural areas provide little opportunity to the educated women and as such their participation rate is much less as compared to participation rate of all females of the working age group. On the whole there does not seem to be any material difference in the participation rate of educated females and general female population to warrant the conclusion that the educated females enter the labour force market in larger proportion than do their uneducated sisters.

Comparative analysis of the educated working population of Uttar Pradesh is not possible on a reliable basis because the definition of literacy and its classification has not remained uniform from census to census. The census report for the year 1891 has divided literacy into three categories of learning,

literate, and illiterate. However, in 1911 a clear definition was adopted for the first time and only such persons were considered literate who could write some message and read its answer. This definition of literacy has continued till now, i.e., 1971 census. Besides these the census authorities in 1951 enumerated for the first time semi-literates, i.e., those who could read but could not write. In the same Census enumeration for literate persons highest examination passed was also recorded. In 1961 detailed information was recorded for the first time about persons with technical and scientific education. In 1971 separate details have been recorded for persons having obtained graduation degree. The category of illiterates included such persons who were not under educational instructions at the time of census enumeration and were not able to read and write any language.

Literacy Ratio :

In matters of literacy the State of Uttar Pradesh has a very low ratio. The literacy ratio per thousand of mean population in different census years has been as under;

Table No. 6.17

TABLE SHOWING LITERACY RATE PER THOUSAND OF MEAN POPULATION IN UTTAR PRADESH DURING THE PERIOD 1872 - 1971

Census years	Literacy rate per thousand of		
	Total population	Male Population	Female Population
1872	22	42	0.2
1881	22	45	1
1891	27	50	2
1901	30	58	2
1911	33	61	5
1921	36	65	6
1931	55	80	10
1941	83	130	30
1951	108	174	36
1961	176	273	70
1971	216	317	102

Figures in the above table which are shown in the graph facing this page, clearly indicate the fact that the level of education of the general population has progressed very slowly till the achievement of political independence and has advanced at a very fast rate since 1951. So far working population is concerned most of the labour force on the whole is uneducated but this is more so in rural than in urban areas. As between sexes male labour force is more educated both in urban and in rural areas. A comparison of the proportion of educated males and females in the labour force with all males and females

participating in the labour force of rural and urban areas shows that education has practically no effect on the participation of both the sexes in the labour force. However, it is correct that urban areas provide greater opportunities of employment for educated persons than do the rural areas.

It is also clear from the foregoing table that the general literacy rate has made a very rapid progress since 1911. In the year 1911 only 3.4 percent of the total population (6.1 percent males and 0.5 percent females) could read and write while in 1971 more than 20 percent of the total population could do so. The pace has been more rapid in case of females than in case of males. This progress has occurred in every economic region and also in every individual district and in each urban and rural area. Both the sexes have benefitted by the progress of literacy. The literacy percentage of Uttar Pradesh is a little more than 2/3rd of India and it takes a very low position in relation to other states. The low progress of literacy in Uttar Pradesh may be explained by limited ~~inf~~ financial resources of the State and acute financial poverty of the people who cannot afford even small schooling expenses. Further in the predominantly agricultural set-up of the economy the parents find no gain in sending the children to schools when they could be adding to the family income at home. In spite of numerous difficulties and hurdles in the way of progress of literacy whatever little progress has been achieved that is by no means less creditable for this State.

Literacy by Livelihood Classes :

The difference in literacy exists not only between men and

women, between rural and urban areas, between one districts and another but also between various livelihood classes as well. The non-agricultural classes as a whole are more literate than the agricultural classes. The table below exhibits figures of each occupational division by educational level and the distribution of 1000 literate non-agricultural workers in urban areas of Uttar Pradesh.

P. T. O.

Table No. 6.18

TABLE SHOWING LITERACY RATE OF NON-AGRICULTURAL WORKERS IN URBAN AREAS OF UTTAR PRADESH IN THE CENSUS YEAR 1961

Occupational Divisions	Total literate workers	Literate workers without educational level	Literate workers with Edn level		
			Matriculate or higher secondary	University degree or post-graduate (non-technical)	Technical Edn. equal to University or post-graduate degree
All occupational Divs. ¹	1513665 (1000)	795408 (525)	280261 (185)	90645 (60)	13249 (9)
Div. 0	160603 (1000) ²	83113 (237)	42180 (262)	38976 (243)	11425 (71)
Div. 1	157610 (1000)	49604 (315)	45618 (289)	18058 (115)	1156 (7)
Div. 2	200591 (1000)	56415 (281)	86017 (429)	18785 (94)	221 (1)
Div. 3	328820 (1000)	201176 (612)	42977 (131)	6676 (20)	114 (3)
Div. 4	1805 (1000)	8434 (714)	1022 (87)	241 (20)	32 (3)
Div. 5	604 (1000)	371 (614)	77 (128)	20 (33)	2 (3)
Div. 6	87356 (1000)	43669 (500)	20672 (237)	3132 (36)	60 (1)
Div. 7 & 8	440441 (1000)	318034 (722)	28843 (66)	2527 (6)	144 (n)
Div. 9	114417 (1000)	73390 (642)	10456 (191)	1515 (13)	36 (n)
Div. 10	11818 (1000)	6202 (525)	2399 (203)	715 (61)	59 (5)

1. Details of occupational Divisions are: Div. 0- Professional Technical and related workers. Div. 1- Administrative, Executive and managerial workers. Div. 2- Clerical and related workers. Div. 3- State workers. Div. 4- Farmers, Fishermen, hunters, loggers and related workers. Div. 5- Miners, quarrymen and related workers. Div. 6- Workers in Transport and communications. Div. 7 & 8. Craftsmen, Production progress workers and labourers not elsewhere classified. Div. 9- Services sport and recreational workers and Div. 10- Workers not classified by occupations.

2. Figures in the brackets show the ratio per thousand of literate of that category.

n = Negligible.

An analysis of the figures in the above table shows that among all occupational divisions the proportion of literate workers without educational level is the highest (526). Of these with primary or junior basic level is 214 and of matriculates or higher secondary is only 185. The proportion under agricultural, veterinary and dairying and in division 0 (zero) as much as 23.7 percent of total literate workers are without educational level. Similarly the proportion of workers with only primary or junior basic level is the highest (268) in occupational division 1, followed by the next highest (252) in division 9. The proportion of workers who have obtained education upto matriculation level or higher secondary is 429 in Division 2 of clerical and related workers and 289 in Division 2 of administrative and executive officials etc. The proportion of matriculates is only 237 in Division 6 of workers in transport, communication and only 91 in division 9.

The figures in the table following this paragraph show industrial classification of workers and non-workers by educational level in rural areas only. According to this table out of the total number of workers 75 percent and 89 percent of female workers are illiterate, 17 percent male and 1 percent females are literate without educational level and only 8 percent males and 0.4 percent females have obtained some educational standard. Among females in all categories of workers the percentage of illiterates is above 94 percent. Only in category 9 the females who have obtained some educational level the percentage is 2.7. It is also observed from the same figures that the primary sector and the household industry have a very high percentage of

illiterate workers in this State. The greatest extent of illiteracy is found among agricultural workers of both the sexes. The position however, differs a little in respect of categories V and VI where the percentage of illiterates is comparatively low among male workers. This is so because the nature of work in these categories requires only literate workers. In categories VII and VIII the percentage of male illiterate workers is still lower as these activities require only lesser degree of literacy. In category nine the percentage of illiteracy again increases because these pursuits require no education. In males the lowest percentage of illiterates (44) is found in the category VIII of transport, storage and communication. The percentage of illiterates is quite high among non-workers. Category VIII has highest proportion of matriculates followed by category IX. The total literate population of Uttar Pradesh in the year 1961 stood at 13013 (000) only which represented 17.6% of the total population. Of the total literate population only 1514(000) were literate workers which gave a percentage of 11.6 of the literate population and only 5.3 percent of the total working population. The detailed figures of literate workers are displayed in the following table.

Table No. 6.19

TABLE SHOWING DISTRIBUTION OF 1000 WORKERS OF EACH SEX IN EACH INDUSTRIAL CATEGORY OF OCCUPATION AND NON-WORKERS BY EDUCATIONAL LEVELS IN RURAL AREAS OF UTTAR PRADESH IN THE CENSUS YEAR 1961

Industrial Classification of workers ¹	Total Nos		Illiterate workers		Literate workers without edn. level		Literate workers with Primary Junior Basic Education		Literate workers with matriculation and over	
	M	F	M	F	M	M	M	F	M	F
Total workers	1000	1000	751	982	171	14	62	3	16	1
Category I	1000	1000	758	984	173	14	60	2	9	n
II	1000	1000	909	996	76	4	14	n	1	n
III	1000	1000	707	969	187	24	79	n	27	n
IV	1000	1000	725	954	214	36	56	9	5	1
V	1000	1000	556	956	274	33	118	7	52	4
VI	1000	1000	594	974	244	25	103	1	59	n
VII	1000	1000	445	956	397	38	131	5	27	1
VIII	1000	1000	526	948	248	38	132	8	94	6
IX	1000	1000	653	950	149	23	112	20	86	7
Non-workers	1000	1000	779	953	151	40	59	7	11	n

n = Negligible

1. Details of Industrial Category of workers:

- Category I = Working as cultivator,
- II = Working as agricultural labourers,
- III = Working in mining, quarrying, livestock, forestry, fishing, hunting, plantations, orchards and allied activities.
- IV = Working at household industry.
- V = Working in manufacturing other than household industry.
- VI = Working in constructions
- VII = Working in trade and commerce
- VIII = Working in transport, storage & communications
- IX = Working in other services

The census Report of 1951 reports literacy rate for India at 16.6 (about 60 million) the highest was in W. India (23.8%) and lowest in Central India (10.9%) and North India (10.8%). Among 60 million literate persons as many as 50 million were without educational level or with educational level lesser than middle school. About 9 million persons had school education more than middle school of whom 1 percent or 3.8 million were matriculates or higher secondary standard or college standard. This level of education has materially resulted in the preponderance of educated labour force of Uttar Pradesh. The male labour force had a greater, proportion of educated members both in urban and in rural areas. It is still more interesting to compare the participation rate of population in the working age group. In rural areas among the persons of the age group 15-59 years approximately above 90 percent males and about 51 percent females participated in the labour force and the corresponding percentage of educated persons being not more than 70 and 25 respectively. In urban areas more than 80 percent males and 25 percent females are in the labour force and the corresponding percentage of educated persons being 75 and 25 respectively. The comparison is not very reliable because literacy figures as collected by the census authorities has different age groups than that followed for the working population.

The Directorate of Statistics and Economics of U.P. Government¹ has made a valuable study of urban employment and unemployment for

1. Urban Employment and Unemployment in U.P. during 1961-62:
U.P. Government - Directorate of Economics and Statistics
(1962).

Uttar Pradesh for the year 1961-62. According to this study out of every ten females in the labour force eight were illiterate and only two were literate (2.0%). Among the literate females in the labour force the ratio of those who passed the Secondary examination was roughly 2.5 percent but the corresponding ratio among male literate labour force was 2.7 percent. The two classes of literate workers were more or less in the same ratio but it was quite different in the case of literate female population. Thus the rate of participation in the labour force of literate females is much higher than that of literate males. In the entire labour force slightly less than half (48%) were illiterate and the rest 52% were literate, 14% being those who had passed the high school or intermediate and the rest consisted of those who were literate but had not passed any examination.

Having discussed in detail the effect of age, sex and education on occupational pattern of population it may safely be concluded that all these factors of the population have their combined effect and none of them can ever be studied exclusively to arrive at the right conclusion. An analysis of these figures will be made in greater detail elsewhere in this study.

CHAPTER VII

PATTERN OF GAINFULLY EMPLOYED POPULATION OF U.P.

Although census statistics do constitute most important source of information about pattern of gainfully employed population yet great care has to be taken in comparing the figures of one census with those of another because occupational classification has not remained uniform throughout. The classification of working population of Uttar Pradesh which we have this day did not emerge over night, rather it gradually transformed itself from the very crude one started in the beginning of the census, getting suitably modified according to the needs of the economy. Thus with a view to have a very clear picture about livelihood pattern of U.P.'s population that an attempt has been made in this chapter to analyse the classification of gainfully employed population from census to census. Accordingly this chapter has been sub-divided into sections based on the schemes of occupational classification followed in this State. The sub-divisions of this chapter are as under:-

- I. Occupational classification of population in 1881-1891.
- II. Occupational classification of population in 1901, 1911 and 1921.

III. Occupational classification of Population in 1931.

IV. Occupational classification of Population in 1941.

V. Indian Census Economic Classification Scheme of 1951.

VI. National Classification of Occupations 1961.

VII. Occupational Classification of Population in 1971.

VIII. Overall Picture of Economic Classification of Population.

I - Occupational Classification of Population in 1881-1891:

Information about gainfully employed population was collected for the first time in 1881 when occupation of only principal earners was recorded. This technique of classifying gainfully employed population was rejected in 1891 wherein it was decided to record the means of livelihood of the entire population. Thus the census of 1891 recorded only the means of livelihood ignoring the distinction between actual workers and dependents. The order below shows the difference between the procedure adopted in 1881 and 1891 censuses:

Census of 1881

Q. Occupation of men, also of boys and females who may do work

Census of 1891

Q. Occupation or means of subsistence

Instructions To Enumerators

Only such persons are to be shown in this column as actually do work contributing to the family income. Here employment in such domestic occupations as spinning will not entitle women to be shown in this column unless the produce of their labour is regularly brought to the market.

Enter the exact occupation or means of livelihood of all males and females who do work or live on private property such as house rent pension etc. In the case of children who do no work enter the occupation of the head of their family or the person who supports them. If a person has two or more occupations enter only the chief one except land in addition to another occupation when both should be entered.

II. Occupational Classification of Population in 1901, 1911 & 1921 :

Since the census of 1891 did not classify actual workers in each occupation the procedure had to be modified in the year 1901 in which three columns were provided for recording occupational details of the population. These were:

1. Occupation or Means of livelihood of actual workers:
 - a. Principal
 - b. Subsidiary
2. Means of subsistence of dependents on actual workers.

The classification provided distinction between principal and secondary means of livelihood not only for agricultural classes but for all workers. Yet in actual operation, data on secondary occupations was compiled only for agriculturists.

In spite of changes in the procedure of recording occupational details in the census of 1901 the needed amount of care could not be given to this aspect but the procedure continued during the course of census years of 1911 and 1921 also. The occupational classification of the population in 1901 census was as follows:¹

1. Exploitation of the surface of the earth.
2. Extraction of Minerals.
3. Industry.
4. Transport.
5. Trade.
6. Public Force.
7. Public Administration.

1. Details of occupational divisions, sub-divisions and groups for the census years 1901 and 1911 are given separately in Appendix.

8. Professional and Liberal Arts.
9. Domestic Service.
10. Unproductive sources of livelihood - Beggars and prostitutes.
11. Rest.

III - Occupational Classification of Population in 1931 Census:

In this census an attempt was made to record both principal and subsidiary occupation for all workers. The 1931 figures give a detailed record of subsidiary occupations of all the principal earners. In accordance with this classification women and children who worked at any occupation to augment the family income had to be recorded as workers and not as dependents.

The census scheme of occupational classification introduced in 1931 is based on Bertillon classification but suitably modified to suit the needs of our economy by adding one more class of 'insufficiently described occupations'. It is really surprising that increase in this new sub-class was more than 380% as shown by the following table:

Table No. 7.1

TABLE SHOWING NUMBER OF WORKERS OCCUPIED IN OCCUPATIONS INSUFFICIENTLY DESCRIBED¹

Census Years	Number	(Figures in Lakhs)
		Percentage variation on
1911	51	---
1921	59	+ 158
1931	78	+ 322

1. Census of U.P. 1951 Economic Tables.

Yet another point of importance which was marked in the census of 1931 was the stagnation in the number of actual workers which recorded a decline from 243 lakhs in 1921 to 236 lakhs in 1931. The table below shows the proportion of actual workers to total population upto 1931.

Table No. 7.2

TABLE SHOWING PROPORTION OF ACTUAL WORKERS TO TOTAL POPULATION FROM ~~1911~~ 1911 TO 1931.

Details	Years (Numbers in Lakhs)		
	1911	1921	1931
Total Population	3151	3189	3528
No. of actual workers	1489	1464	1769
% of workers to total population	47.2	45.9	41.7

It would appear from the above table that proportion of actual workers to total population show a progressive decline and the decline between 1921 and 1931 was much greater than the decline between 1911 and 1921. Taking main classes of occupations the distribution of population in the census of 1911, 1921 and 1931 stood as under:

Table No. 7.3

TABLE SHOWING THE NUMBER OF ACTUAL WORKERS INTO VARIOUS OCCUPATIONS¹

Details	Total number of workers (Lakhs)		
	1911	1921	1931
Total workers	1489	1464	1469
1. Production of Raw materials	1065	1061	1035
2. Preparation and supply of Raw material substances	280	258	256
3. Public Administration and Liberal Arts	44	41	42
4. Domestic service	27	25	39
5. Insufficiently Described Occupation	51	60	78
6. Unproductive	21	19	18

1. Source: Census of U.P. 1951 Economic Tables.

The above figures which are shown in the graph facing this page clearly show that there has been no appreciable change in the number of persons occupied in each class of occupations except in domestic service and insufficiently described occupations which show an increase of 14 and 18 lakhs respectively in 1931 over the corresponding figures of 1921. Agriculture on the other hand show a decline of 24 lakhs during the same period.

Each of the above described main classes were further subdivided to suit detailed economic classification of total and working population. In the main class I i.e., the Production of Raw materials the main sub-divisions were (i) pasture and agriculture, (ii) cultivation of special crops and (iii) exploitation of minerals. All these three together occupied more than 70% of total workers of Uttar Pradesh. The second main class concerning Preparation and Supply of Minerals Substances has three sub-divisions of (i) Industry, (ii) Transport and (iii) Trade. The census definition of industrial employment in 1931 was 'any employment on wages in company with any other person by a third person'. Thus the definition covered numerous non-industrial employment also such as carpenter and mechanic etc. In this group there has not been any appreciable increase in the total number of workers when compared with previous censuses of 1921 and 1911. Most of the large scale industries of the province were covered under this group and occupied about 25 percent of total workers in this main division. The third main division of Public Administration and Liberal Arts was divided into five sub-classes i.e., (i) Public Force, (ii) Public Administration, (iii) Law, (iv) Medecines and (v) Instructions. The main class IV of

Miscellaneous covered population living on its own income, domestic services, occupations insufficiently described and also population living on non-productive sources of income.

The table below details the distribution of population into numerous sub-divisions of four main classes of occupations during the years 1911, 1921 and 1931.¹

Table No. 7.4

TABLE SHOWING DISTRIBUTION OF POPULATION INTO DIFFERENT CLASSES OF OCCUPATIONS DURING THE YEARS 1911, 1921 AND 1931

Sub-divisions of main classes	No. of persons occupied ('000)		
	1911	1921	1931
<u>Class I Production of Raw Materials</u>			
1. Pasture and Agriculture	105336	104944	102454
2. Cultivation of special crops	1202	1450	1693
3. Exploitation of Minerals	309	348	346
<u>Class II Preparation and supply of Minerals substances</u>			
1. Industry	17511	15725	15353
2. Trade	2395	1971	2342
3. Transport	8101	8049	7913
<u>Class III Public Administration and Liberal Arts</u>			
1. Public Force	1069	1040	841
2. Public Administration	971	1005	995
3. Law	82	98	133
4. Medicine	270	337	502
5. Instructions	272	255	319
<u>Class IV Miscellaneous</u>			
1. Persons living on their income	206	184	216
2. Domestic services	2726	2532	3898
3. Insufficiently Described	5068	5946	7779
4. Non-Productive	2071	1855	1626

1. Source; Census of U.P. 1951, Economic Tables.

To meet the deficiency of previous classification of occupations this new scheme provided a whole sub-class of 'Insufficiently Described Occupations' and increase of workers in this group was more than 32% during the decade 1921-1931 only. In accordance with the Bertillon-system of occupational classification which was followed in this State in the Census years 1911, 1921 and 1931 the distribution of population and workers stood as follows:

Table No. 7.5

TABLE SHOWING DISTRIBUTION OF POPULATION AND WORKERS IN U.P. DURING THE DECADES 1911 to 1931

Year	Total Population (Lakhs)	Actual workers (Lakhs)	% of workers to total population	Population engaged in industry (Lakhs)		
				Persons	Males	Females
1911	3151	1489	47.2	30.51	18.54	11.97
1921	3189	1464	45.9	26.22	16.08	10.14
1931	3525	1469	41.7	26.30	17.42	8.88

Mr. Bertillon's classification is the International Scheme of occupational classification which has numerous advantages in the field of international comparability but it did not suit the economic needs of backward regions like that of Uttar Pradesh.

IV - Occupational Classification of Population in 1941:

The occupational details of the population were dropped in the census of 1941 for the obvious reason that India Government did not want to disclose the size of population engaged in war

pursuits. Thus detailed occupational engagement of population for this census is not available. Yet it is presumed that the classification of occupations which were designed in the census of 1931 were faithfully followed by the people in the census of 1941 also with minor modifications here and there to suit the economic needs of the society. However, it may be mentioned here that a significant percentage of the effective population was engaged in war occupations directly or indirectly during the Second World War. The normal peacetime occupational structure of the population was totally disturbed during the war period.

V. The Indian Census Economic Classification Scheme 1951 :

The occupational classification of 1931 described earlier did not suit the economy of Uttar Pradesh and the Government of the State decided to make a shift. Since the census of 1941 decided to drop the question of occupational classification. The new scheme of 'Indian Census Economic Classification' was introduced in the census of 1951. This scheme of occupational classification is based on the previous scheme of 1931 and as such it is indirectly only a modification of the Bertillon Scheme referred to earlier. However, it embodies extensive revision and rearrangement of occupations¹ designed to ^{achieve} ~~receive~~ the following objectives:

1. to establish a comprehensive economic classification of the people as a whole and not merely of persons who are gainfully occupied,

1. The details of occupational divisions and sub-divisions of 1951 census are given in Appendix.

- ii. to simplify and improve the method of presentation of census economic data and provide additional details of economic interests.
- iii. to ^{Secure}~~receive~~ international comparability of data as recommended by the Economic and Social ^{Council}_h of the United Nations Organisation.

Basis of Classification:

The census of 1951 seeks to ascertain the 'Economic Status' and 'Means of Livelihood' of every person enumerated. In this census four questions related to the economic characteristics of the population of which two questions (Q. 9 and Q. 10) formed the basis of classification of each individual. It is on this basis that population was divided into eight livelihood classes described earlier. Each of these livelihood classes were further sub-divided into three classes with reference to their economic status as follows:

1. Self supporting persons
2. Non-earning dependents and
3. Earning dependents.

All the non-earning dependents were treated as economically passive. All earning dependents were treated as semi active only although they contributed to the carrying on the economic activity. All self-supporting persons were treated as economically active with the exception of the following classes or groups:

1. All self-supporting persons of Agricultural Class IV.
2. Persons living on pensions, scholarships and funds.
3. Persons living principally on income from non-agricultural property.

4. Inmates of alm-houses and recipients of doles.
5. Beggars and Vagrants.
6. All other persons living principally on non-productive sources of income.

In 1951 census economic activities were defined as including all activities of which the result is production of useful commodities or the performances of useful services but not including the performance of domestic or personal services by the members of the family household for one another.

The most important of all activities in U.P. as well as in India was considered cultivation of land or production of field crops and stood on a category by itself. All other activities were placed in the category of non-agricultural termed as 'Industries and Services'. These industries and other services were classified into 10 divisions and 8 sub-divisions, 216 groups and 5 groups outside the prescribed divisions. Economically active persons engaged in cultivation were either cultivators or cultivating labourers. Economically active persons engaged in 'Industries and Services' were self-supporting persons. Each of these persons were further classified according to their economic status as (i) Employers, (ii) Employees and (iii) Independent workers.

Occupational Classification of Population in 1951

This census laid special emphasis on livelihood details of the population. Entries were made in census records under the principal means of livelihood for all dependents whether earning or non-earning by recording the principal means of livelihood of

those who supported them. It is on this basis that entire population of Uttar Pradesh was divided into eight livelihood classes, four of which were agricultural and the remaining four non-agricultural in character. These eight classes were as under:

Agricultural Classes

1. Cultivators of land wholly or mainly owned and their dependents.
2. Cultivators of land wholly or mainly unowned and their dependents.
3. Cultivating labourers and their dependents.
4. Non-cultivating owners of land, agricultural rent receivers and their dependents.

Non-agr cultural classes

5. Production other than cultivation
6. Commerce
7. Transport
8. Other services and miscellaneous sources.

Although detailed economic characteristics of the population have been obtained invariably in every census but in 1951 special pains were taken to collect exhaustive data about economic activities of the people. In this census every person was classified either as self-supporting, non-earning or earning dependent. In case of self-supporting person his principal and secondary means of livelihood were recorded. Then self-supporting persons were again classified into employers, employees and self-employed persons (independent workers). The table below shows the different manners in which economic data has been collected in the previous censuses for which records are available:

Table No. 7.6

TABLE SHOWING COMPARATIVE ECONOMIC CLASSIFICATION OF POPULATION SINCE 1881¹

Year	Classification of enumerated population	Principal occupation or means of livelihood	Secondary or subsidiary means of livelihood	Remarks
1881	Earners and non earners (including working dependents)	Principal occupation or means of livelihood	Secondary means of livelihood of agriculturist earners only.	-
1891	Non-dependents (including working dependents) and dependents	Principal occupation of every person	-do-	Dependents for principal means of livelihood classified on the basis of their supporters.
1901	Workers (including dependents) and non-workers	-do-	Secondary occupation of workers	Non-workers classified on the basis of principal means of workers who supported them
1911	-do-	-do-	-do-	-do-
1921	-do-	-do-	-do-	-do-
1931	Earners, working dependents and non-working dependents	Principal means of livelihood of earners	Secondary means of livelihood of earners and working dependents	Working dependents classified according to their occupation and non-earners not classified.
1941	Non-dependents, partly dependents and wholly dependents	Principal occupation of every person	Secondary occupation of non dependent and partly dependents	Dependents classified on the basis of occupation which supported them.
1951	Self supporting persons, earning and non-earning dependents	-do-	Secondary means of livelihood of self support- ing persons and occupation of earning depen- dents.	Dependents classified according to occupation of those who supported them.

1. Source: Census Report 1951 U.P., pp. 201, ~~Table 134 Part 1~~.

In 1951 census the agricultural occupations because of their special importance were separated from the main schedule of occupational classification and they have been classed into four livelihood classes. In previous censuses agricultural occupations formed part of one general occupational classification and fell under several groups. The details in the following table compare agricultural occupations of 1951 with those of previous censuses;

Table No. 7.7

TABLE SHOWING AGRICULTURAL CLASSIFICATION OF POPULATION IN 1911, 1921, 1931 and 1951¹

Agricultural means of livelihood 1951	Occupational group 1931	Occupational group 1921	Occupational group 1911
1. Cultivation of owned land.	5. Cultivating owners.	2. Ordinary cultivator	2. Ordinary cultivator.
2. Cultivation of unowned land.	6. Tenant cultivators.	4. Farm servants	4. Farm servants and labourers.
3. Employment as cultivating labourer.	8. Cultivation of Jhumtangya and shifting areas	5. Field Labourers.	1. Income from Agricultural rent.
4. Rent on agricultural land.	7. Agricultural labourers	1. Income from agricultural land.	
	1A. Non-cultivating proprietors taking rent in money or kind.		
	1B. Non-cultivating tenants taking rent in money or kind.		

1. Source: U.P. Census 1961, p. 201.

It is clear from the above table that livelihood classes I and II of 1951 are not individually comparable to any group of the previous censuses but the total of these two groups is comparable to the total of groups 5, 6 and 8 of 1931, 2 of 1921 and 1911. Livelihood class III of 1951 is identical with group 7 of 1931, group 4 and 5 of 1921 and group 4 of 1911. Population in livelihood group IV is comparable with total of group IA and IB of 1931 and group I of 1921 and 1911. A number of occupational groups of the previous censuses which fell under the sub-order 'cultivation' and 'cultivation of special crops' fruits etc. were excluded from agricultural classes. The table below provides some important details of previous censuses in this respect.

TABLE SHOWING PRESENT (1951) CLASSIFICATION OF AGRICULTURAL OCCUPATIONAL GROUPS OF PREVIOUS CENSUSES WHICH HAVE BEEN EXCLUDED FROM THE AGRICULTURAL CLASS OF 1951

1951	1921	1911
Div. 0. Primary Industries not elsewhere specified (Livelihood Class V)	Order 1. Pasture and Agriculture	Order 1. Pasture and Agriculture
O. 3. Plantation Industries, Owners, managers and workere.	b. Cultivation of special fruits, crops	b. growers of special products and market gardening
O. 31. Tea Plantation	15. Cultivation of tea	6. Tea, Coffee, cincona, rubber and indigo plantation (5)
O. 32. Coffee Plantation	11. Cultivation of Coffee	7. Fruit, of flowers, vegetables, betel, vine, arecanut etc. (6)
O. 33. Rubber Plantation	14. Cultivation of Rubber	
O. 30. All other plantations including special crops fruits, flowers and betel leave plantation	13. Cultivation of Cincona	
Div. 8. Health, Education and Public Administration (Livelihood Class III)	10. Cultivation of coconut	
8. 7. Employers of State Govt.	12. Cultivation of Ganja	
Div. 9. Services not elsewhere specified (L.C. III)	13. Cultivation of Pan, vine	
9. 1. Domestic service	16. Market gardeners, flowers & joint growers	
9. 10. Other domestic servants, waterman, domestic grass cutters, Karinda, Zamindar	a. <u>Ordinary Cultivation</u>	
	3. State agents and managers of Governments.	
	2. Estate Agents and managers of owners	3. Agents managers of landed estates clerks, rent collectors etc.
	4. Rent collection clerks etc.	4. Agents, managers of landed estates clerks, rent collectors

1. On the next page.

Thus examining in detail agricultural and non-agricultural means of livelihood it would appear that in agricultural sector the proportion of workers rose sharply between 1901 to 1921 due to a rise in the proportion of workers of cultivation of owned land and unowned land.

VI. The National Classification of Occupations 1961:

The schemes of occupational classification followed in Uttar Pradesh during the census years 1911, 1921, 1931 and 1951 did not suit the economic needs of this region. Hence in order to remove the deficiencies of previous schemes the occupational classification of population was once again altered in the year 1961. The new scheme of occupational classification known as 'National Classification of Occupations' adopted in 1961 classifies occupations into 331 occupational families, 75 occupational groups and 11 occupational divisions.¹

Occupational Classification of Population in 1961:

In view of numerous shortcomings experienced in the classification of occupations and means of livelihood in the census of 1951 it was seriously felt in the census of 1961 that occupational classification should be changed again in the light of criticisms and hence once again in 1961 the occupational classification was altered and population was classified in two main categories of working and not-working. The working population was again sub-classified into nine categories based on its actual activities. These categories were (I) as cultivators,

1. The details of occupational divisions and sub-divisions of 1961 census are given in Appendix.

(II) as agricultural labourers, (III) working in mining, quarrying, livestock, forestry, fishing, hunting, plantation, orchards and allied activities, (IV) working at household industry, (V) working in manufacturing other than household industry, (VI) working in constructions, (VII) working in trade and commerce, (VIII) working in transport, storage and communication and (IX) working in other services. Thus the occupational classification which has been followed in 1971 census also is very different from the earlier classifications and is definitely more suited to present economic conditions than earlier ones.

The occupational classification adopted in 1961 no doubt is an improvement over the classification followed in previous censuses. An attempt has been made in these pages to workout estimates relating to the working force in Uttar Pradesh from 1901 to 1971 (except 1941) based on census reports so as to make them comparable with 1961 census data. The definition of workers and non-workers followed in 1961 is compared below with persons of same status of previous censuses. This comparison is as follows:

Census years	Workers	Non-workers
1951	<p>1. All self supporting persons with productive principal means of livelihood except agricultural rent receivers, beggars and prostitutes</p> <p>2. Agricultural rent receivers with secondary means of livelihood from productive occupations.</p>	<p>1. All non-earning dependents</p> <p>2. Agricultural rent receivers with no productive source of secondary occupation.</p> <p>3. Persons living on property income, persons living in jails, asylums, beggars, vagrants and others deriving their income from non-productive activity.</p>

(continued)

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|-------------|---|--|--|
| | 3. All earning dependents except those who are agricultural rent receivers and earning from non-productive sources of income. | 4. Earning dependents whose means of livelihood was agricultural rent. | 5. Earning dependents whose secondary means of livelihood was non-agricultural and non-productive. |
| 1941 | Occupational data not collected in this Census. | | |
| 1931 | 1. All earners following productive occupations.

2. All working dependents following productive occupations | 1. All working dependents.

2. Earners and working dependents following non-productive occupations.

a. non-cultivating proprietors taking rent in money or kind.

b. non-agricultural proprietors fund and scholarship holders and pensioners.

c. Inmates of jails and asylums.

d. beggars and vagrants.

e. Procurers and prostitutes.

f. other unclassified non-productive industries. | |
| 1921 & 1911 | 1. All actual workers having productive occupation | 1. All dependents and

2. All actual workers in non-productive occupations as stated in 1931 census. | |
| 1901 | 1. All actual workers having productive occupation. | 1. All dependents and

2. Actual workers in non-productive occupations:

a. rent receivers, b. prostitutes, procurers, pimps, c. receivers of stolen goods, d. witches, wizards and cow poisoners, e. house rent sharer and other property not being land, f. allowances from patrons and relatives, g. educational & other endowments, scholarship etc., h. non-religious mendicants & i. pensioners, inmates of asylums & prisoners. | |

It was for the first time in 1961 that economic data were collected and tabulated separately under 'industrial' and 'occupational' classification in respect of workers other than those engaged in cultivation. The 'industry' denoted the sector of economic activity in which the worker was engaged, while occupation conveyed the exact function or work which an individual performed in that sector. For example in the economic activity of 'cotton spinning and weaving in mills' there are different types of workers such as spinners, weavers, managers, engineers, drivers, watchmen and so on. So far as their industrial classification is concerned they would all be classed as workers in 'cotton, spinning and weaving in mills', but for occupational classification they would be classified by nature of their individual work such as weaver, spinner, manager, mechanical engineer, driver of road transport, watchman and so on.

With a view to work out estimates relating to working force in Uttar Pradesh during the period 1901-1961 a detailed analysis of census data is needed for the same period. Since the tripartite division of economic status was dispensed with in 1961 it has become essential to make appropriate changes in the available data for 1931 to 1951. Detailed figures for working force of 1941 are not available. In earlier censuses the actual workers were treated as workers and dependents were treated as non-workers. From the group of actual workers those pursuing unproductive occupations were transferred to non-working population. In order to have a comprehensive analysis of working population for various census periods the figures

have been reclassified and rearranged on the basis of 1961 census. For the purposes of this reclassification the groups in earlier censuses were first related to the groups in the Indian Standard Industrial Classification (I.S.I.C.) adopted in 1961 and then consolidated into nine broad industrial categories of workers. Here in certain adjustments had to be made important among which were as under:

Owner cultivators, tenant cultivators, estate managers and managerial and shifting cultivators have been shown against category I of 1961 (cultivators). The toddy drawers who were included under food industries in previous censuses have been included in industrial category III in 1961 census. In 1951 toddy drawers were included with other workers in processing and manufacturing of beverages. No estimate could therefore be made for persons working in industrial category (IV) (household industry). These workers have been included in industrial category III and V. Workers in generation and transmission of electric energy and gas have been included in category V of 1961 (manufacturing other than household industry). In 1901 makers and sellers in all cases have been listed under category V. Wherever possible, persons employed on construction and maintenance of roads, bridges, railways, harbours, canals, rivers, aerodromes etc., have been shown in category VI (construction). Workers who operated such transport works were shown under the category VIII (Transport, storage and communication). Rent collectors, clerks etc., of ex-zamindars and jagirdars have been transferred to category IX (other services). This category includes washing, cleaning and dying, barbers,

hair dressers and scavenging which were listed in earlier censuses in industry and hotel keeping and shown under trade. Private motor drivers and cleaners have been included in category IX and not under Transport.

In 1951 census classification of population into divisions and sub-divisions was done only in respect of self-supporting persons and also with regard to their principal means of livelihood. Thus no divisionwise breakup of earning dependents and self-supporting persons with regard to their secondary means of livelihood was available. Earning dependents have been divided into their respective divisions and sub-divisions. Self-supporting persons belonging to livelihood class IV who had a productive secondary means of livelihood have also been distributed in similar manners. No allocation of earning dependents was made in respect of such sub-division in which number of earning dependents was negligible or insignificant. These sub-divisions were composed of railways, roadways, local bodies and government sectors. Some workers were classified in the category of general labour in the censuses of 1901, 1911, 1921 and 1931. These have been apportioned among industrial categories of 1 to 9 on pro-rata basis in the proportion in which rest of the working force exclusive of general labour was distributed. Involvement of workers in some groups of activities which was categorised as 'unspecified' and insufficiently described has now been properly reappropriated. Workers under manufacture, businessmen, contractors and otherwise unspecified have been distributed between the industrial categories V and VII in proportion to the rest of workers in the two cate-

gories. Workers under the categories of cashiers, accountants, booking clerks, clerks and other employees in unspecified offices warehouses and shops have been distributed among industrial categories V to IX of 1961 according to proportion of workers, in these categories. Workers under 'uncertain' have been distributed on a proportionate basis in all the industrial categories and those under unspecified among non-agricultural categories of V - IX of 1961.

A careful analysis of data on working population from census to census is helpful in solving the following two important problems:

- a. Whether the increase in the working population of 1961 signify any real increase or it has been due to change in the concept of working population.
- b. Whether there has been any shift howsoever small from the primary sectors and a corresponding progressive increase in secondary and tertiary sectors.

It is observed from the available data that there has been steep rise in working population during 1901-1911 followed by a decline in the next census. The census year 1901, 1931 and 1951 are considered as normal years although 1901 suffered from aftermath of famines and 1931 was in the centre of world wide economic depression. The indices of workers on the base 1901 came to 130 in primary sector, 122.08 in secondary and 179.03 in tertiary sector. Calculated on basis of worker and population ratio the rate of change of population and total workers during certain census decades was as under;¹

1. Population Census Totals 1961 (India), p. 418,

Table No. 7.9

TABLE SHOWING COMPARATIVE RATES OF CHANGE AMONG WORKERS AND TOTAL POPULATION DURING 1931, 1951 and 1961.

Census years	Rate of Population	Change in Total workers	Workers in sectors of		
			Primary	Secondary	Tertiary
1931	0.041628	0.0204996	0.01706852	0.0131318	0.041716
1951	0.070124	0.0326052	0.01583916	0.0570240	0.094580
1961	0.084372	0.0386830	0.01523248	0.0789698	0.121012

Analysing all the available data it can be concluded that there has been a slight shift of in the negative direction with regard to the rate of change of workers in the primary sector while there is a gradual but progressive increase in the rate of change of workers in the secondary and tertiary sectors assuming that the figures of workers for the year 1901-1961 classified into sectors are more or less comparable. The tertiary sector has increased at a much faster rate where as the rate of change in the primary sector has been a slow and gradual decrease. The sharp increase among male and female workers in 1961 census deviates from the past trend. Some of this increase may be 'definitional' but there seems little ground to discount a real increase during 1951-1961 of a dimension not experienced earlier.

In working out detailed estimates for the working force in earlier censuses on the basis of 1961 data, necessary adjustment had to be made in 1931 and 1951 census figures in order to conform to the division of the population into workers and non-workers the actual workers and dependents of earlier censuses

have been treated as workers and non-workers to make the data comparable with 1961 census. Even among actual workers persons following non-productive occupations have been transferred to non-working population. The table below makes a detailed comparison of workers and non-workers from 1901 to 1961.

Table No-7.10

TABLE SHOWING GROUPING OF WORKERS AND NON-WORKERS OF 1901-51 CENSUSES IN FORM OF THE TEN INDUSTRIAL CATEGORIES OF 1961

1961	1951	1931	1921	1911	1901
I Working as cultivator	Livelihood class I (cultivators of land wholly or mainly owned) plus class II (cultivators of land wholly or mainly un-owned)	Groups 2,3,5, 6 & 8	Groups 2 & 3	Groups 2 & 3	Groups 37,40, 52, & 56
II Working as Agricultural labourers	Livelihood class III (cultivating labourers)	Group 7	Groups 4 & 5	Group 4	Groups 38 and 39
III Working in mining & quarrying etc.	Divisions 0 plus Div. 1 of Livelihood Class V	Groups 9 to 41, 53 & 76	Groups 6 to 24, 42 & 74	Groups 5 to 20 35 & 65	Groups 25 to 32, 34,35,35(a),41 to 51,53,58,59, 78,79,83,131, 146,147,153,154, 259,309 to 311(a) 319,346,354,356, 358,360,492,493, and 503.
IV Working in household Industry	----	----	----	----	----
V Working in Manufacturing other than household industry	Div.2 plus Div.3 plus Div.4 of livelihood class V plus sub-Div.5.5 of livelihood Class VIII	Groups 42 to 52,54 to 75,77 to 84,87,89 91 to 99 & 188.	Groups 25 to 41, 43 to 73, 75 to 79, 83 to 85, 87, 90 to 100 and 184*	Groups 21 to 34, 36 to 64,66 to 70, 74 to 76, 80 to 84, 86 to 91 &	Groups 76,77,82, 84, to 96, 98 to 100, 102,103,106 to 116,119,120, 125,127,129,133, 135 to 141,143, 145,151,152,155,

(Continued)

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1961	1951	1931	1921	1911	1901
					155,157,160,161, 166 to 171, 173 to 176, 178 to 186, 190, 193 to 204,206,208,210, 212,214,216 to 220,222 to 227, 229 to 232, 234 to 244,246,248 to 253,255 to 258, 260,262,to270, 271 to 273,275, 277 to 279,281 283 to 288,290, 292,294 to 299, 301 to 303,305 to 308,312 to 314, 316,317,320 to 322,323(a),324, 326 to 328,330 to 332,334 to 336(a) 338,340 to 344, 347 to 353,361 to 365,367,368,370, 373 to 376,378 to 388,391 and 505(a).
I Working in construc- tion	Sub Div 5.0 to sub- div. 5.4 of liveli- hood class VII	Groups 90,105, 106 & 113	Groups 86,88,89, 108,109, 111,112 & 113	Groups 77 to 79,96, 98, & 104	Groups 162 to 165 and 500 to 502.
I Working in Trade & Commerce	Livelihood Class VI (Div. 6)	Groups 115 to 126,128 to 152	Groups 121 to 129 & 130 to 154	Groups 106 to 111,116 to 136 & 138	Groups 80,81,97, 101,104,105,123, 124,126,128,130, 132,134,142,144, 148 to 150,156, 158,159,172,173, 187,189,191,192, 205,207,209,211, 213,215,221,228, 233,245,247,254, 261,270(a),274, 276,280,282,289, 291,293,300,304, 315,318,323,325,3 329,333,337,339, 345,355,357,359, 366,369,371,372, 377,389,390, and 392 to 408.

(Continued)

from previous page					
61	1951	1931	1921	1911	1901
II Working in Transport, Storage & Communication	Sub-div. 7.0 to 7.4 of livelihood class VII plus sub-div. 7.5 to sub-div. 7.9 of livelihood class VIII	Groups 111 to 104,107 to 112 & 114	Groups 104 to 107,110 113 to 118 & 120	Groups 94,95, 97,99 to 103, & 105	Groups 117, 118 and 408 to 443.
IX Working in other services	Livelihood class VIII minus sub-div. 5.0 to sub-div. 5.5 minus sub-div. 7.5 to sub-div. 7.9 minus persons in non-agricultural non-productive occupations (i.e., sub-div. 5.6, 5.7 and Div. 8 and Div. 9)	Groups 4,85,86 100,127, 153 to 184,186 187,189 190 & 191	Groups 80 to 82 101 to 103,130, 135 to 175,181 to 183 185,186 and 187	Groups 71 to 73 85,92,93, 115,137, 139 to 160 162,163, 165,166, 167	Groups 1 to 24,33,54,55 57,60 to 75 121,122,188, 300(a),444 to 491,494 to 499,504 505,505(b) to 520(a).
X Non-Workers	(i) All non-earning dependents. (ii) S.S. persons whose principal occupation was class IV with no productive secondary occupation; (iii) S.S. persons with non-productive non-agricultural occupations included in Class VIII; (iv) E.D. whose own occupation (secondary means of livelihood) was agricultural rent under Class IV; and (v) E.D. estimated at 465,792 whose secondary occupation was non-agricultural non-productive.	All non-working dependents plus groups 1,185 & 192 to 195	All dependents plus groups 1,180 & 188 to 191	All dependents plus groups 1,161, 168 & 169	All dependents plus groups 36 and 506 to 520

Source : Census of India : P Final Totals 1961 P. 293

Occupational classification of Population in 1971

The economic classification of population and its occupational main divisions remained broadly the same as those of 1961 census.

Overall Picture of Economic Classification of Population

Taking into account entire period of census count in Uttar Pradesh it may be concluded that economic means of livelihood of the population was not seriously studied till the census of 1881. However, a little more serious attempt was made in this direction in the census of 1901. A clear definition of worker or self-supporting population was evolved in the census of 1911 and the same criterion continued in the census years of 1911, 1921 and 1931. The census of 1941 omitted altogether the collection of data on occupational engagement of population as a matter of state policy but we presume that violent deviations took place in the magnitude of population in classes of economic activity although the classes may have remained the same. Then came the census of 1951 which divided the entire population into eight livelihood classes but then the classification did not stand the test of the need of our economy and a further modification was made in the census of 1961. The census of 1961 divided the population into two main classes of workers and non-workers, with workers further sub-divided into nine industrial categories. The same classification continued in the census of 1971 with very minor adjustment to suit the needs of ever developing and changing economy of Uttar Pradesh. The table below gives the details of classes and sub-classes into which population of U.P. was classified in different censuses.

Table No. 7.11

TABLE SHOWING CLASSIFICATION OF OCCUPATIONS AT DIFFERENT CENSUSES¹

Details of classification	Census years									
	1872	1881	1891	1901	1911	1921	1931	1941	1951	1961
1. Classes	7	7	7	7	4	4	4	Data not collected	2	2
2. Orders/ Divisions	24	24	24	24	12	12	12		8	11
3. Sub-orders/ sub-divisions	77	77	77	77	55	55	55		88	75
4. Groups / sub-groups	478	478	478	520	169	169	195		216	331

1. Source: Census Report 1951, Part II, B.P. 2, Eco. Tables.

It has been stated earlier and may be repeated here once again that frequent changes in the concept of occupation and occupational classification have rendered comparison difficult. It should also be remembered that these occupational classifications like other census data relate to one day only. Since a number of occupations in Uttar Pradesh are seasonal in character the picture of occupational engagement may lie totally different on any other day of the year.

CHAPTER VIII

CHANGING OCCUPATIONAL PATTERN OF UTTAR PRADESH

The schemes of occupational classification followed in different census years has not remained uniform and consequently the occupations of the people in different occupational groups have also varied. The different occupations in which people of Uttar Pradesh engage themselves can be conveniently divided into the following three categories:

- i. Agriculture and allied industries of fishing and hunting etc.
- ii. Mining and other manufacturing industries.
- iii. Trade, transport and other occupations mainly concerned with supply of services.

The occupational distribution of the working population of Uttar Pradesh differs widely from that of other states in India and also from countries outside India. The occupational pattern of this State has also varied from census to census. Hence with a view to have a detailed idea about changing occupational pattern ^{of} ~~and~~ population of U.P. it is essential that census to census changes in this respect should be studied in detail. To provide a systematic analysis to the objectives of this study the present chapter has been sub-divided into following sections:

1. Congestion in Agricultural occupations.
2. Variation in livelihood classes.
3. Livelihood Pattern in different regions.
4. Livelihood Pattern of Population in Rural and Urban Areas.
5. Livelihood Pattern of the Present Population.

The details of these sections are as under:

1. Congestion in Agricultural Occupations:

The State of Uttar Pradesh has higher proportion of its population supported by agriculture and only lower proportion of total population by industries. This occupational congestion, whatever its remedy be, has its origin in the failure of our economy to adjust itself to the rapid growth of our number. Our agricultural community has expanded mainly by internal growth though the decay of rural industries has made some contribution yet there has been no change in the technique which reduces the demand for farm labour. In Uttar Pradesh as elsewhere in India we have two industrial systems -- one dominated by large scale industries carried on in factories and workshops and the other one made up of innumerable cottage and small industries located in villages and towns. About 75 percent of industrial population is engaged in cottage and small scale industries and only 25 percent in large scale industrial establishments. Thus average earning of an industrial worker in U.P. is low when compared to that of India as a whole and of other states in India. As such the foremost problem of our population is therefore occupational maldistribution.

Most of the modern occupations which are followed in

Uttar Pradesh now a days began to develop after the decay of feudalism. The transformation of the ancient society into class society of the present day occurred along with the occupational development. Even in England the class system though not entirely occupational is largely centered round occupational groupings. In India the Indian Statistical Institute put up in 1954 a scheme of classification of industry and occupation which made seven broad divisions of (1) occupational, administrative and executive occupations (non-technical), (2) Professional, technical and related occupations (superior), (3) Subordinate administrative and executive occupations, (4) Ministerial occupations, (5) Sales and related occupations (subordinate), (6) Subordinate technical occupations and (7) Service occupations.

It is interesting to note that there has been a great increase in service occupations in the recent past in U.P. particularly during the post-Independence period. Service occupations mean all kinds of sales occupations, occupations that manage to bring all products and utilities into the reach of the people the service being mainly that of bringing the possible buyers and goods together. The above referred to scheme of seven fold classification of occupations is not comprehensive enough to include all categories of occupations prevailing in any oriental or modern society. Even the student of social structure with the best intention can not group all individuals who practice occupations in these specific categories.

2. Variation in Livelihood Classes :

The variation in livelihood classes can be measured either by taking the total population supported by different livelihood classes which include the self-supporting persons and their earning and non-earning dependents also. Variation can also be measured by taking into account only self-supporting persons engaged into different livelihood classes. The second method is always better than the first one because it takes into account the actual number of workers alone and not their dependents who are not the participants but only beneficiaries of that livelihood class in which their guardians are engaged. A perusal of occupational engagement of the population of Uttar Pradesh during the earlier part of this century clearly indicates that commerce claimed the smallest proportion. The caste wise classification of occupations disclosed that in the beginning of this century Christians were mostly in Public Administration. Employment of the population of Uttar Pradesh in other industrial sectors related to -- (i) textiles; (ii) engineering; (iii) minerals and metals; (iv) food, drink and tobacco; (v) chemical and dyes etc., (vi) paper and printing; (vii) process relating to glass, wood; (viii) processes relating to hides and skins; (ix) gins and presses and (x) miscellaneous.

The table below details total population supported by various livelihood classes in different census years:

Table No. 8.1

TABLE SHOWING LIVELIHOOD PATTERN OF THE GENERAL POPULATION (ACTUAL AND PERCENTAGES)

Figures in ('000)

Means of Livelihood	Census years			
	1951	1921	1911	1901
Total Agricultural and non-Agricultural Classes	76215 (100)	46511 (100)	48014 (100)	48494 (100)
Total Agricultural Classes	46897 (74.18)	34704 (74.62)	34131 (71.08)	31359 (64.67)
Cultivation of owned and unowned land	42617 (64.41)	29850 (64.18)	28712 (59.80)	23535 (48.35)
Employment as cultivating labourer	3612 (6.71)	4036 (8.68)	4542 (9.48)	4376 (9.03)
Rent on Agricultural land	668 (1.6)	818 (1.76)	866 (1.80)	3448 (7.11)
Total non-Agricultural classes	16339 (25.82)	11807 (25.38)	13884 (28.92)	17135 (35.33)
Production	5301 (8.39)	4801 (10.32)	5427 (11.30)	5887 (12.14)
Commerce	3180 (5.030)	2132 (4.58)	2168 (4.52)	2280 (4.70)
Transport	860 (1.36)	373 (0.80)	388 (0.81)	496 (1.02)
Other services and Miscellaneous	6978 (11.04)	4501 (0.68)	5900 (12.29)	8473 (17.47)

In the census years 1931 and 1941 the occupation of only self-supporting persons and earning dependents was recorded that is why the detailed figures for the above two census years are missing from the above table. But for these two census years the livelihood pattern of the population is available for all

other years and shown on the graph facing this page. These figures vary considerably when compared with the figures of engagement of actual workers into different livelihood classes for different census years. These figures are as under:

P. T. O.

Table No. 8.2

TABLE SHOWING LIVELIHOOD PATTERN OF WORKERS - 1901 TO 1971¹
(Figures in '000)

Means of Livelihood	Census years							
	1901	1911	1921	1931	1941	1951	1961	1971
Total Agricultural and non-Agricultural classes	23611 (100)	24641 (100)	24830 (100)	24159 (100)	19143 (100)	26839 (100)	28850 (100)	28417 (100)
Total Agricultural classes	15158 (64.20)	17205 (69.82)	18647 (75.10)	17680 (73.18)	12218 (63.83)	20227 (75.36)	21241 (73.03)	22282 (70.1)
Cultivation of owned and unowned land	11180 (47.35)	13804 (56.38)	15805 (63.65)	13807 (57.15)	10423 (54.45)	17934 (66.82)	19285 (66.7)	20636 (65.4)
Employment as cultivating labourer	2597 (11.00)	2964 (12.03)	2509 (10.11)	3419 (14.15)	1762 (9.21)	2014 (7.50)	1897 (6.5)	1646 (5.2)
Rent on Agricultural land	1381 (5.58)	347 (1.41)	333 (1.34)	454 (1.88)	303 (0.17)	274 (1.04)	59 (0.20)	n (n)
Total non-agricultural classes	8452 (33.80)	7436 (30.18)	6184 (24.90)	6478 (26.82)	6924 (36.17)	6612 (24.64)	7559 (26.17)	9272 (29.9)
Production	2921 (12.37)	3059 (12.40)	2659 (10.71)	2605 (10.78)	1702 (8.89)	2193 (8.17)	2047 (7.09)	2275 (7.2)
Commerce	967 (4.18)	1029 (4.18)	1015 (4.09)	1147 (4.75)	1083 (5.66)	1062 (3.96)	1077 (3.7)	1092 (3.4)
Transport	207 (0.88)	173 (0.70)	153 (0.61)	183 (0.76)	182 (0.95)	284 (1.06)	299 (1.3)	314 (0.96)
Other services and Miscellaneous	4338 (18.37)	3179 (12.90)	2357 (9.49)	2544 (10.53)	3957 (20.67)	3074 (11.45)	4136 (14.3)	5591 (17.7)

1. Source: Census of U.P. Part IA, 1951, and later projections based on average calculations. Figures in bracket show percentage of total workers of that census year.

Statistical information for the census year 1941 in the above table is not very reliable and can not be depended upon for drawing any valid inference because those figures are based on two per cent sample of the census slips of that year. Comparing the figures in the above two tables one comes to the conclusion that percentages run parallel with significant differences. It is really strange that the percentage of cultivating labourers in actual workers are higher than those in the total population supported by individual livelihood classes but in case of commerce and transport such percentage is lower. This difference may be explained due to existence of a higher proportion of workers among employed as cultivating labourers and a lower proportion among population of other two means of livelihood. These figures are illustrated by means of a diagram facing this page.

Examining the percentage variation in livelihood pattern of workers it is noticed that the proportion of population depending on agriculture rose steadily from 1901 (64.20%) to 1921 (75.10%) registered a slight decrease in 1931 and followed a rising trend later on. These trends are in direct contrast to the trends in industrially advanced countries of U.K., and U.S.A. where the proportion of agricultural workers has been steadily declining during the last one century. The increase among cultivators of owned and unowned land and employment as cultivating labourers has been due to three factors: (i) increase in agricultural wages, (ii) increased prices for agricultural produce and (iii) price support by the Government. Contrary to agricultural classes the proportion of population in non-agricultural

classes declined from 1901 to 1921, recorded a little increase in the decade 1921-31 and has again been falling since then and yet the absolute number has recorded substantial increase because of increase in population.

Thus one can easily say that while more and more people are taking to non-agricultural occupations the increase in their number is not keeping pace with the increase in population. Examining the figures of each non-agricultural means of livelihood it appears that the number of workers has been steadily declining from 1911. Under Commerce it has been facing fluctuation but has followed a definite downward trend since 1931. Under transport the number has been increasing because of road expansion programme of the Central and State Governments. Under the category of administrative services the increase has been due mainly to the increasing administrative activities of the government, local bodies and public institutions. The table below shows the importance of actual workers, in the total population of each livelihood class;

Table No. 8.3

TABLE SHOWING PERCENTAGE OF WORKERS TO TOTAL POPULATION¹

Livelihood classes	Census years				
	1951	1931	1921	1911	1901
Total Agricultural and non-Agricultural classes	42.5	48.7	53.4	51.3	48.7
Total agricultural classes	32.0	35.6	40.1	35.8	31.3
Cultivators of owned and unowned land	28.4	27.8	34.0	28.9	23.0
Employment as cultivating labourers	3.2	6.9	5.4	6.2	5.4
Agricultural Rent receivers	0.4	0.9	0.7	0.7	2.9
Total non-agricultural classes	10.5	13.1	13.3	16.5	17.4
Production	3.5	5.3	5.7	6.4	6.0
Commerce	1.7	2.3	2.2	2.1	2.0
Transport	0.45	0.37	0.33	0.36	2.43
Other services and Miscellaneous	4.9	5.1	5.1	6.6	9.0

1. Source : Census of U.P. 1951, Part I A, p. 208.

It has already been stated earlier and may be repeated here once again that the classification of occupation which was introduced in the year 1951 was changed in the census of 1961. Thus the figures of 1951 census had to be considerably modified to make them comparable with those of 1961. In the year 1961 the percentage distribution of working population in different economic region of this State was as under:

Table No. 8.4

TABLE SHOWING PERCENTAGE DISTRIBUTION OF WORKERS IN DIFFERENT REGIONS IN 1961

Area / Region	Total workers	
	Numbers ('000)	Percentage of Total
1. Hill Region	1745	5.9
2. Western Region	8273	30.0
3. Central Region	4806	16.3
4. Eastern Region	12479	41.7
5. Bundelkhand Region	1547	6.1
Total U.P.	28850	100.0

These figures are shown in the map No. 17 facing this page.

Although there has not been much of diversification in the occupational pattern of population in Uttar Pradesh since 1951 but changes in the definition of workers and non-workers and also in some other terms and concepts of components of the population there seems that violent fluctuation has taken place in the economic pattern of the population.

The percentage distribution of the population of Uttar Pradesh into eight different livelihood classes in the census of 1951 stood as under in different regions;

Table No. 8.5.

TABLE SHOWING PERCENTAGE DISTRIBUTION OF POPULATION OF UTTAR PRADESH INTO LIVELIHOOD CLASSES IN DIFFERENT REGIONS IN 1951

Regions / State	Agricultural classes					Non-Agricultural classes				
	Total	I	II	III	IV	Total	V	VI	VII	VIII
1. Hill	79	72	5	1	1	21	5	4	1	11
2. Western	65	56	3	5	1	35	11	7	2	15
3. Central	75	63	6	5	1	25	8	5	1	11
4. Eastern	83	69	7	6	1	17	6	4	1	6
5. Bundelkhand	75	56	7	11	1	25	8	5	2	10
6. Total U.P.	74	62	5	6	1	26	8	5	1	12

It is clear from the above table that nearly 75 percent of the total population derives its livelihood from agricultural and 25 percent from non-agricultural occupations. Among agricultural occupations class I consisting of owners/ cultivators represented the highest percentage of population, i.e., 62.3 percent. In the context of livelihood, owner cultivators are those who possess the right of occupancy in land which is heritable though it may not be transferable always. Agricultural class II is composed of tenants of Sir sub-tenants and other cultivators with no right of occupancy in land and they form 5 percent of the total population. Cultivating labourers were 5.7 percent. Non-cultivating owners of land mostly zamindars were not more than 1 percent of the total population and as usual in this class too the figure included their dependents also. Among the non-agricultural classes the highest percentage of population was in class VIII (11.04%) which included division 5 composed of construction and utilities. The next highest percentage falls

under category V (8.39%) only. 5.03 percent of the population falls in class VI and 1.36% in class VII. Based on their priority the eight livelihood classes stood as under in 1951:

Table No. 8.6

TABLE SHOWING PRIORITY OF LIVELIHOOD CLASSES

Livelihood Classes	Percentage of Population
I	63
VIII	11
V	8
III	6
VI	5
II	5
VII	1
IV	1

The figures below compare the livelihood pattern of U.P. with that of India for the year 1951:

Table No. 8.7

TABLE SHOWING DEPENDENT POPULATION OF INDIA AND U.P. IN DIFFERENT LIVELIHOOD CLASSES IN 1951

Details of livelihood classes	Percentage of dependent Population in	
	India	U.P.
1. Agriculture	69.84	74.18
2. Production other than cultivation	10.56	8.39
3. Commerce	5.97	5.03
4. Transport	1.58	1.36
5. Other services & Miscellaneous	12.05	11.04

In the year 1951, of the total population 31 percent were self-supporting persons, only 12 percent as earning dependents and the remaining 57 percent non-earning dependents. Thus more than 50% population of Uttar Pradesh depended on the earnings of less than 50% persons. If we include the earning dependents also in the category of persons who had to be supported the ratio of earners and non-earners comes to 31.69. This ratio compares very favourably with the dependent ratio prevailing even in the highly industrialised western societies of the world. The ratio of dependents in agricultural and non-agricultural classes also did not vary very much rather in both the sectors the percentage of self-supporting persons was very close to each other. 30% in agriculture and 33% in non-agricultural sector. Of course the proportion of males and females in the category of self-supporting persons varies too much. In agricultural sectors out of 30 per cent total topulation engaged in it 27% were males and only 3% females. In the non-agricultural sector the percentages were 29 4 respectively.

Taking over all position out of 31 percent population forming self-supporting persons only 28 percent were males and 3 percent were females. Thus the proportion of self-supporting persons is slightly higher in the non-agricultural classes than in the agricultural classes. Besides the proportion of self-supporting persons is also higher in the non-agricultural classes than in the agricultural classes due to better opportunities of employment for them in livelihood classes of cottage industries. Agriculture of course offers better employment opportunities for engagement of women and children in the family holdings. The table below

gives percentage distribution of self-supporting persons into eight livelihood classes;

Table No. 8.8

TABLE SHOWING PERCENTAGE DISTRIBUTION OF SELF-SUPPORTING PERSONS INTO LIVELIHOOD CLASSES BY SEX IN 1951

Livelihood classes	Self supporting persons		
	Persons	Males	Females
All Classes (Agr. & Non-Agr.)	100	100	100
All Agricultural classes	72	73	68
I Cultivators of owned land	59	60	46
II Cultivators of unowned land	5	5	5
III Cultivating Labourers	7	6	12
IV Agricultural rent receivers	1	1	5
All Non-Agricultural classes	28	27	32
V Production	9	9	8
VI Commerce	5	5	3
VII Transport	1	1	1
VIII Other Services	13	12	20

Taking the State of Uttar Pradesh as a whole out of 19259510 self-supporting persons 90.4% were males and 9.6% females. Among males 72.7% were engaged in agricultural and 27.3% in non-agricultural occupations. The self-supporting persons in 1951 had 7579806 earning dependents - 28% males and 72% females. Of male earning dependents 83.4% depended on agricultural occupations and only 16.6% on non-agricultural occupations. Among cultivators of land 71.2% were males. Among females earning dependents were 89.4% depended on agriculture and only 11.6% earning dependent

females had non-agricultural livelihood.

Analysing the census figures of 1961 classified into two categories of workers and non-workers the livelihood pattern of the working population stood as under in different census years.

Table No. 8.9

TABLE SHOWING DISTRIBUTION OF POPULATION INTO WORKERS AND NON-WORKERS FROM 1901 to 1971¹.

(Figures in '000)

Categories of workers	Census years							
	1901	1911	1921	1931	1941	1951	1961	1971
Total Population	48625	48152	46670	49777	58532	63216	73746	88299 ³⁶⁵
Total workers	23611	24641	24830	24159	22900	26839	28850	28417
I	11064	13981	16888	19895	Detail	18235	18428	23100
II	2589	2965	2428	1920	not	2131	3261	3850
III	267	734	950	912	avail	268	172	214
IV	--	--	--	--	able	--	1801	2841
V	2592	2319	2428	1850		2131	801	1024
VI	49	87	99	70		201	214	273
VII	474	1059	1075	1020		1073	1063	1358
VIII	186	189	230	210		278	399	510
IX	6390	3307	732	1210		2523	2710	3032
Non-workers	25014	23511	21840	25618	35632	36377	44896	59948

¹ ~~Some calculations projected on the basis of a average of 1961 population~~ ^{Supposed} 2% increase in labour force.

Taking the Census year 1961 individually the percentage of male and female workers in nine different industrial categories of workers was as under:

Table No. 8.10

TABLE SHOWING SEXWISE PERCENTAGE DISTRIBUTION OF WORKING POPULATION INTO NINE INDUSTRIAL CATEGORIES IN 1961

Categories of workers	Persons	Males	Females
Total workers	100	100	100
Industrial category I	63.89	63.62	64.78
II	11.30	9.06	19.24
III	0.60	0.66	0.38
IV	6.24	5.87	7.58
V	2.78	3.43	0.47
VI	0.74	0.93	0.06
VII	3.68	4.43	1.05
VIII	1.38	1.76	0.04
IX	9.39	10.24	6.40

These figures are displayed on the diagram No. 12 facing this page.

Detailing the occupational structure of U.P. Prof. Baljit Singh clearly states in his 'Comparative Economic Development of India and U.P.', that in 1961 total working force increased by 35 percent in India and by only 9 percent in U.P. In India the rate of growth of working force was higher than the growth rate of population but in U.P. it was lower. In U.P. during the decade there was an actual decrease of 11% in female workers while total female population increased by 17%. The labour market which expanded in India recorded contraction in U.P. State economy thus stagnated during the decade 1951-1961. In this period non-workers increased by 22% inspite of lower rate of

population growth. Female non-workers increased at a rate higher than their rate of growth. Out of total increase in working population by 9%, increase recorded in agricultural workers was 26%, mining 32%, household 32%, construction 11%, commodity production 1% and trade and commerce by 3%. In tertiary sector the working force increased by 2.7 percent. Taking overall position 75.6% percent of the working force was engaged in agriculture and only 9 percent in commodity production.

3. Livelihood Pattern in Different Regions:

Dividing the general population of each region of Uttar Pradesh into eight livelihood classes, the proportion of agricultural and non-agricultural classes in three regions closely follow the state proportion. In the Eastern region the proportion is fairly high and in Western region considerably lower than the State average and the fact is explained by urbanisation and industrialisation of these two regions in Uttar Pradesh. Examining the differences in agricultural class separately, it appears under Class I the largest percentage is in Hill region followed by Eastern region. The smallest percentage of the class lives in Western region and Bundelkhand region. In Western region due to urbanisation the proportion of population engaged in agricultural class is male and in Bundelkhand region due to difficult nature of terrain the cultivators have to engage hired labour for their own cultivation and have to do considerable sub-letting. Under class II the highest percentage is in Bundelkhand region followed by Eastern region and least is in Western region. In class III highest percentage is found in Bundelkhand

region and lowest in Hill region. The table below, figures of which are shown in the Map facing this page, gives the proportion of cultivating labourers in the various regions of U.P. since 1901.

Table No. 8.11

TABLE SHOWING PERCENTAGE OF CULTIVATING LABOURERS AND THEIR DEPENDENTS TO TOTAL POPULATION 1901 to 1951

Regions / State	1951	1921	1911	1901
Total (Uttar Pradesh)	6.0	8.7	9.5	9.0
1. Hill	1.1	2.0	2.1	4.1
2. Western	5.2	7.1	7.0	6.8
3. Central	5.2	9.1	11.0	11.3
4. Eastern	7.1	9.2	10.8	8.6
5. Bundelkhand	11.7	15.1	16.4	16.6

It has been observed that the proportion of cultivating labourers has always been the lowest in Hill region owing to existence of large holdings and lowest in such regions where holdings are small. It is really remarkable that above table shows fall in the figures of cultivating labourers in the Central region also due to the fact that owing to land reform legislations many of the former labourers have been converted into cultivators. Thus there is now a tendency for the percentage of cultivating labourers to decrease mainly due to the reason that holdings are progressively decreasing in size and along with that the need for employing labourers is also decreasing. Cultivators also avoid engaging labour owing to mounting wages. The latest position of cultivators and other agricultural

labourers for the year 1971 has been as under:

Table No. 8.12

TABLE SHOWING PERCENTAGE OF CULTIVATORS, AGRICULTURAL LABOURERS AND OTHER WORKERS TO TOTAL WORKERS (REGIONWISE) IN THE YEAR 1971

Region / Area	Percentage to Total workers of		
	Culti- vators	Agricul- tural	Other workers
1. Hill Region	20.5	25.1	54.4
2. Western Region	61.3	13.6	25.1
3. Central Region	71.0	4.9	24.4
4. Eastern Region	52.0	27.3	20.7
5. Bundelkhand Region	55.4	14.7	29.9
Total U.P.	56.0	19.3	24.7

The figures in the above table are illustrated by the Map No. 18 facing this page.

Among the non-agricultural classes the highest percentage falls in western region and lowest in eastern region owing to different degree of organisation and industrialisation. Analysing the distribution in each separate class of non-agricultural livelihood in class V of production the highest percentage falls in Western region and lowest in Hill region. The Western region is highly industrialised and Hill region has very few organised industries. Under class VI Commerce the highest percentage falls in Western region and lowest in Hill region and Eastern region. The Western region being highly industrialised is equally advanced in commerce also but the Hill region is backward in this respect also. In class VII the highest percentage falls in

Western region followed by Hill region and Central region. And under VIII class the highest percentage has been in the Western region - the most industrialised region of the State and lowest in the Eastern region.

4. Livelihood Pattern of Rural and Urban Population:

The livelihood pattern of rural and urban areas of this State differs materially from each other and does not correspond with State average. Deciding all economic activities in agricultural and non-agricultural occupations we find that agriculture is predominantly rural while non-agricultural occupations are followed by majority of population in urban areas. Although majority of rural population follows agricultural occupations but eminent Geographers of India are not unanimous in their views to designate rural population as agricultural population. Prof. Gopal¹ writes that "rural population in India is not synonymous with agricultural population. About 17 percent of rural population in India derives its livelihood from non-agricultural pursuits. The actual number of such persons is not less than 50 million. Thus while these people are classed as rural they are not farmers." The learned Professor further maintains that a large majority of rural non-farm people earn their living from activities which are not directly associated with local farming such as cottage industries, handicrafts, processing industries, retail commerce, transport, local administration and public services like education and health. Stock raising, fishing and plantation industries have also been defined as non-agricultural occupations by census.²

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1. Gopal, Prof. G.D.- 'Occupational Structure of India's Rural Population - A Regional Analysis'. The National Geographical Journal of India, Varanasi Sept. 1958 Vol. IV, Part III, pp. 137.
 2. Ibid., p. 138.

Prof. Gogal further observes that there are marked regional and inter-regional variations in the occupational structure of rural population in India. Since agricultural occupations predominate everywhere among rural population, their percentage is not a sensitive ^{index} to the study of regional variations in the livelihood pattern. Therefore, the percentage of rural population dependent on non-agricultural pursuits for a livelihood has been used as the main criterion for the regional divisions.

In rural areas of Uttar Pradesh nearly 84 percent of the population belongs to agricultural class of occupations and only 16 percent of the total population depends on non-agricultural classes of livelihood. Invariably in every region a part of the rural population always depends on non-agricultural occupations and there are only few regions in India where rural non-farm population is less than eight percent of the total rural population. The distribution of the rural population in the year 1951 into non-agricultural occupation was as under:

Table No. 8.13

TABLE SHOWING PERCENTAGE DISTRIBUTION OF RURAL POPULATION INTO LIVELIHOOD CLASSES OF DIFFERENT REGIONS IN 1951

Area / Region	Percentage of rural population	
	Agricultural classes	Non-agricultural classes
1. Hill Region	89	11
2. Western Region	88	12
3. Central Region	86	14
4. Eastern Region	78	22
5. Bundelkhand Region	85	15
Total U.P.	84	16

The figures in the above table are displayed in the Map No. 19 facing this page.

Agricultural occupations are practised by urban population also. In this State about 12% of the total urban population followed agricultural occupations in the year 1951. And thus the living pattern of urban population materially differs from that of rural population. Invariably in every state a significant percentage of total working population derives its livelihood from non-agricultural occupation. During the decade 1951-61 a genuine shift has occurred in U.P. as well as other States of India in employment from agricultural to non-agricultural pursuits due to substantial economic growth in these regions. "Thus in Indian areas, where an overwhelming majority of the population lives in villages, an analysis of the livelihood pattern of the rural working force will further an understanding of their diverse demographic and cultural attitudes and provide background knowledge for formulating future plans for their social and economic development."¹ In the year 1951 the agricultural occupations of urban population of U.P. were as under:

Table No. 8.14

TABLE SHOWING PERCENTAGE DISTRIBUTION OF URBAN POPULATION INTO LIVELIHOOD CLASSES IN 1951

Region / Area	Percentage-distribution-of urban population into	
	Agricultural occupations	Non-Agricultural occupations
1. Hill Region	5	95
2. Western Region	17	83
3. Central Region	8	92
4. Eastern Region	14	86
5. Bundelkhand Region	16	84
Total U.P.	12	88

1. Goyal, Prof. G.D. and Gopal Krishnan- 'Occupational Structure of Punjab'. The Indian Geographical Journal of Madras, Vol. XL, Nos. 1 and 2, p. 1.

Engagement of urban population into agricultural occupation is shown on the Map No. 20 facing this page.

The variation in occupational pattern exists even among different regions. In the urban areas the high proportion of agricultural population in the plain areas of Eastern and Western region^{is} mainly due to the existence of high proportion of agricultural classes in urban areas of a few districts of these regions. It has also been observed that a fair proportion of urban population in most of the eastern districts have their roots in rural areas and people are mainly cultivators of owned land. The livelihood pattern of city areas of Uttar Pradesh is compared below with that of urban areas which reveals a higher proportion of non-agricultural classes in rural than in urban areas. In 1951 there were 30 city areas in U.P. with a total population of 4777384. The population of 437 non-city urban areas was 3848315 or 79 percent of city population. The difference in the size of population is a potent factor to explain the difference in the livelihood classification of the city from that of urban areas. These figures are as under:

P. T. O.

Table No. 8.15

TABLE SHOWING PERCENTAGE DISTRIBUTION OF URBAN AND CITY POPULATION IN DIFFERENT LIVELIHOOD CLASSES IN 1951

Livelihood classes	Urban Population	City Population
Total Agricultural & Non-Agricultural Classes	100	100
Total Agricultural classes	12	4
I Cultivators of owned land	8	2
II Cultivators of unowned land	2	1
III Cultivating labourers	1	n
IV Agricultural rent receivers	1	1
Total Non-Agricultural classes	88	96
V Production	25	28
VI Commerce	22	22
VII Transport	6	8
VIII Other services	35	38

It is clear from the above table that non-agricultural classes constitute over 90 percent of the population in all cities except Shahjahanpur, Amroha, Jaunpur, Budaun and Sambhal. Class V of non-agricultural class of livelihood is highest in Firozabad followed by Kanpur, Varanasi, Mirzapur, and Moradabad. Livelihood class commerce is followed more in areas with big Mandis.

The livelihood pattern of self-supporting persons differed widely from the pattern of general population both in rural and urban areas. The table below shows the percentage distribution of self-supporting persons into different livelihood classes

both in rural and in urban areas;

Table No. 8.16

TABLE SHOWING PERCENTAGE DISTRIBUTION OF POPULATION OF EACH LIVELIHOOD CLASS INTO SELF-SUPPORTING PERSONS IN RURAL, URBAN AND CITY AREAS

Livelihood classes	Percentage of self-supporting persons in		
	Rural areas	Urban areas	City areas
Total of Agricultural & Non-Agricultural classes	30.4	30.6	3.11
Total of Agricultural classes	29.7	27.2	2.71
I Cultivators of owned land	28.9	26.9	2.85
II Cultivators of unowned land	30.6	27.1	2.69
III Cultivating labourers	36.7	33.4	3.40
IV Agricultural Rent Receivers	40.9	24.9	2.28
Total of non-Agricultural classes	34.1	31.1	3.12
V Production	33.32	30.9	3.13
VI Commerce	31.3	27.0	2.67
VII Transport	29.8	31.2	3.17
VIII Other services	36.0	33.8	3.38

It is clear from the above table that in 1951 in the rural areas 30.4 percent population comprised of self-supporting population, 13.4 percent earning dependents and remaining 56.2 percent as non-earning dependents. In urban areas the respective percentages were 30.6, 3.4 and 66. In city areas 31.1 percent were self-supporting, 2.4 earning dependents and 66.5 percent as non-earning dependents. Distributing the self-supporting persons of rural and urban city areas and their percentage into different livelihood classes stood as follows:

Table No. 8.17

TABLE SHOWING PERCENTAGE DISTRIBUTION OF RURAL AND URBAN POPULATION INTO DIFFERENT LIVELIHOOD CLASSES.¹

Libelihood Classes	Rural Population	Urban Population
Total of Agricultural & Non-Agricultural Classes	100.00	100.00
Total of Agricultural Classes	82.01	11.02
I Cultivators of owned land	67.14	7.37
II Cultivators of unowned land	5.73	1.48
III Cultivating Labourers	7.79	1.06
IV Agricultural Rent Receivers	1.35	1.11
Total of Non-Agricultural Classes	17.99	88.98
V Production	6.32	25.20
VI Commerce	2.43	19.28
VII Transport	0.59	6.30
VIII Other Services	8.65	38.20

1. Source: Census of U.P., 1951, Part I-A, p. 146.

Making an analysis of the dependency of the rural population with that of urban population it is clear from the figures in foregoing table that the proportion of self-supporting persons is about the same in rural and in urban areas but the proportion of female self-supporting persons is lesser in urban areas than in rural areas in all the livelihood classes. Women play an important part as earning dependent in rural population than in urban population both in agricultural and non-agricultural operations. Earning dependents are a feature of agricultural occupation only and flourish mainly in rural areas. The predominantly agricultural countries have greater proportion of

rural population than partial one but not predominantly agricultural countries and the later have greater proportion than industrial countries. It has been found that decrease in agricultural labour has gone hand in hand with increase in urban population except in Uttar Pradesh because figures for different census years are not comparable. As regards the working population in urban areas the following figures display its importance in urban areas as percentage to total working population.

Table No. 8.18

TABLE SHOWING PERCENTAGE OF URBAN WORKERS TO TOTAL WORKERS IN 1961

Area / Region	Urban workers	
	Nos. ('000)	% to total workers
1. Hill Region	129	4.4
2. Western Region	1573	53.6
3. Central Region	406	13.8
4. Eastern Region	679	23.2
5. Bundelkhand Region	147	5.0
Total U.P.	2934	100.0

Map No. 21 facing this page displays the figures in the above table.

As regards the causes of relative decline in agricultural population and consequent increase in urbanisation it transpires that in the west it has happened under the impact of industrial revolution which lead to mechanisation of agriculture, higher yield per acre and reduction in agricultural man-power requirements. The surplus man-power migrated to urban areas and engaged

in the production of industrial goods for which the demand was on an increase. In Uttar Pradesh urbanisation does not seem to be the result of increase in yield per acre or mechanisation leading to reduction in man-power requirement but is the result of increase in population in relation to the rather fixed quantity of land under cultivation. According to the Planning Commission further scope for increase in the area under cultivation is extremely limited and as such man-power requirements in agriculture seems to have come to saturation point. Addition to population must therefore be absorbed by industries or ^{services} receivers and consequently urbanisation would increase. The change in mode of cultivation would further increase the pace of urbanisation.

5. Livelihood Pattern of the Present Population :

The occupation composition of the population of any region is as fluid as any other economic data and is subject to variation the very next day. Although the latest position of the economic engagement of the population of Uttar Pradesh is available from the census returns of 1971 but the same may have considerably changed since then along with changes in the economic structure of this State.

The total population of Uttar Pradesh in the year 1971¹ stood at 88369779 of which 46922872 were males and 41441907 were females. Of this population 4.3 percent was in Hill region, 35.6 percent in Western region, 17.8 percent in central region, 37.5 percent in Eastern region and only 4.8 percent in Bundelkhand region. Thus Eastern region of the State has the highest

1. Districtwise composition of male and female population along with other details is given in Appendix.

concentration of population and the Bundelkhand region has the lowest. These figures are shown on Map No. 29 facing this page.

Of the total population of Uttar Pradesh as many as 28417 (000) persons were returned as workers which comes to 32.2 percent of the total population. The percentage of workers to total population has recorded a decline of 7.9 percent over 1961 figures when this percentage stood at 39.1. In absolute numbers also the working population has decreased from 28850 (000) in 1961 to 28417 (000) in 1971. The number of male and female workers being 24777 (000) and 3639512 (000) forming 52.8 percent and 8.8 percent of their respective total population. Thus more than 50 percent of male population was worker. It has been observed almost everywhere that all able bodied adult males do engage themselves in some economic activity or another, but that is not the case with female population. The male working population of Uttar Pradesh has also recorded decline from 58.2 percent of total population in 1961 to 52.8 percent in 1971.

The number of female workers is significantly smaller in comparison to male workers because most of the females of working age group are engaged primarily in household duties. The number of female workers was 3639512 only forming only 12.8 percent of total workers of the State and 6.25% of total male workers. In the year 1961 the percentage of female workers to total female population was 18.1 percent but it declined to only 8.8 percent in the year 1971 recording a total decrease of 9.3 percent during the decade. In their regional distribution which is shown on the Map No. 23 facing ^{next} ~~this~~ page the percentage of female workers to total workers was 38.2 in Hill region, 3.9 in Western region,

8.7 in central region, 18.3 in Eastern region and 14.0 in Bundelkhand region. The State average stood at 12.8 percent for male workers. Based on these figures the highest proportion of female workers has been in Hill region and the lowest in Western region which proves that poverty is directly correlated with female participation in the labour force of a region.

As regards the position of workers in different districts they were more than 50 percent of their population in more urbanised and industrialised areas and lesser than that in others. The districts where there were more than 50% workers are Uttar Kashi (63.7%), Chamoli (57.8%) and Tehri Garhwal (51.6%). This has been attributed due to greater participation of females in economic activities of these regions. The lowest percentage of workers has been recorded in Etawah (27.2%) and other districts where the percentage of workers is quite low are Bulandshahr (27.4), Agra (27.6), Mainpuri and Meerut (both 27.8%). All these districts are in the Western plains. The low percentage of workers in these areas may be due to lack of participation of females in economic activities.

Uttar Pradesh being predominantly agricultural, most of the workers are engaged in agricultural pursuits. There are 15910591 cultivators and 5497317 agricultural labourers and workers engaged in activities other than agricultural are only 7008963. Their respective percentages to total workers being 56.0, 19.3, 24.7. The regional distribution of these workers has already been discussed earlier in this chapter.

Non-workers in U.P. form a comfortable majority. In 1971 the number of non-workers was 59947908 of which 22145513 were males and 37802395 were females. Non-workers formed 67.8 per cent of total population. Only 47.2 percent of total males and as high as 91.2 percent of total females were non-workers. The highest percentage of non-workers was in Western region, 70.3 percent followed by Bundelkhand region 67.7. The central region has 63.6% non-workers. The Hill region claiming lowest percentage has 57.1% of its population as non-workers. These percentages of non-workers in different economic regions are shown on Map No. 24 facing this page.

Occupational Maldistribution:

Considering the occupational engagement of the population of U.P. it can be stated that income per worker is lower in U.P. and there are not many avenues of employment. Since there is low productivity in all occupations we may continue to be a poor people even after the proportion of men and women engaged in trade, industry and transport has increased at the expense of agriculture and allied occupations. The pressure of population has not only depressed the physical productivity of our agriculture but it has also adversely affected its character and money return obtained from it by our farmers. Thus our population can never hope to be rich with our agriculture using primitive technique and inadequate resource. In the absence of other outlet for increasing population every possible effort should be made to revitalise agriculture and reform other occupations to make people comparatively more prosperous.

CHAPTER IX

INTERNATIONAL CLASSIFICATION OF OCCUPATIONS AND UTTAR PRADESH

There is no such scheme of classification of occupations which is named as 'International Scheme' nor any single scheme has been universally adopted by all the nations or even by majority of the nations. However, with a view to provide inter-country comparison of the data on occupational pattern of the population that United Nations has approved a scheme of classification of occupation prepared by Dr. Jacques Bertillon, a French National. This very scheme has been popularly known as "International Classification of Occupations" and the member nations of the UNO either collect their occupational data on the pattern of this scheme or as near to it as they can. Such member nations of the UNO which cannot collect their occupational statistics on the basis of this scheme atleast present their data on this pattern.

An attempt has been made in this chapter to compare briefly the characteristics of Bertillon Scheme with the schemes of classification of occupations made applicable to the economy of Uttar Pradesh from time to time. It has also been attempted herein to compare the demographic and vocational

characteristics of Uttar Pradesh with certain selected countries of the world. Accordingly this chapter has been divided into following sections;

1. Schemes of occupational classification of U.P. and International Classification of occupation.
2. Demographic characteristics of U.P. compared with selected countries.
3. Occupational Pattern of Population in certain selected countries.

The details of these sections are as under:-

1. SCHEMES OF OCCUPATIONAL CLASSIFICATION IN U.P. AND INTERNATIONAL CLASSIFICATION OF OCCUPATIONS;

The "Bertillon Classification of Occupations" as approved by the United Nations Organisation was adopted in Uttar Pradesh with appropriate modifications as late as 1911 although first census count was made in this State as early as 1872. There was no appropriate classification of occupations in the census of 1872. In the census of 1881 the English classification was adopted in U.P. with minor adjustments but this scheme was totally unsuitable for this economy. The scheme of classification of occupations adopted in 1881 did not last beyond one count and an altogether new scheme was introduced in the census year 1891 which continued in the census of 1901 also. This scheme also did not serve the purpose. Hence with a view to provide international comparison of occupational statistics the scheme devised by Dr. Jacques Bertillon was adopted in U.P. (India) in the census year 1911 and with certain minor modifi-

cations continued till 1931. Bertillon Scheme of classification of occupation is very comprehensive and its groups and sub-groups can be as detailed or simple as desired without interfering with the comparability of statistical information. Yet this scheme did not suit the economy of Uttar Pradesh which needed an altogether new scheme of occupational classification based on Indian conditions but with facilities for its comparison with other countries. The Bertillon Scheme as adopted in Uttar Pradesh was discontinued after census count of 1931. No new scheme could be introduced in 1941 census count because it did not provide for collection of data relating to occupations of the population.

A new scheme of occupational classification was therefore introduced in the census of 1951. This scheme is known as 'The Indian Census Economic classification Scheme'. This new scheme though based on Bertillon Scheme of 1931 is totally different from that. This scheme also differs from International Standard Industrial Classification Scheme (ISICS). Some of the basic differences of 1951 scheme with those of Bertillon Scheme and ISICS scheme are as under;

a. Indian Census Economic Classification Scheme 1951
and Bertillon Scheme of 1931 :

The Bertillon Scheme as applied to the economy of Uttar Pradesh in 1931 classified all persons into earners, earning dependents and non-earning dependents. In 1951 all persons have been classified as self-supporting persons, earning dependents and non-earning dependents. The difference between 'earners'

and 'self-supporting persons' is very slight but it has affected the comparability of occupational figures of two censuses. Then in 1931 economic status of a person was not ascertained and in 1951 every self-supporting person has been classified either as employer, employee, independent worker or even otherwise. Further in 1931 principal means of livelihood was recorded only for earners and earning dependents but in 1951 it has ^{been} recorded for all persons. Thus in 1951 even non-earning dependents have been classified into livelihood classes which was not possible in 1931.

b. Indian Census Economic Classification Scheme 1951
and International Standard Industrial Classification
Scheme

The International Standard Industrial Classification Scheme has been evolved by the United Nations to provide inter-country comparability of occupational data. The Indian Census Economic Classification Scheme of 1951 was drawn to maintain comparability with International Scheme of the United Nations. The Economic and Social Council of the United Nations recommended the use of this scheme by all member governments either by adopting this system as national standard or by rearranging their statistical data in accordance with International scheme for purposes of international comparability. 1951 scheme gave effect to the later of the two alternatives.

In International scheme there are 10 divisions and 44 major groups of economic activities which include agriculture and correspond to 10 divisions and 88 sub-divisions of industries and services of 1951 scheme. In International Scheme

Unit of Classification is 'organised establishment' and produce is the criterion for classifying the establishment. The classification of establishment is the classification of every member of the establishment. In the scheme of 1951 unit of classification in every case is the individual. All employees and independent workers have been classified with reference to the commodity produced or services rendered by them individually. Employees have been classified with reference to their own activity and without reference to that of their employers.

Thus there is a technical difference between the two schemes with regard to the Unit of Classification under the scheme of 1951 for every self-supporting person, his principal and secondary means of livelihood were recorded if one had. Again every self-supporting person was classified into Employer, Employee and Independent worker.

National Classification of Occupations 1961 and Bertillon Scheme

The scheme of occupational classification adopted in 1951 no doubt was very comprehensive and provided international comparability also but it did not suit the socio-economic needs of India (U.P.). As such it could not continue beyond the census count of 1951 and a new scheme 'National Classification of Occupations' was adopted in the census of 1961. A detailed study of the coverage of this new scheme under its eleven(11) divisions clearly reveals that these groups though different from Bertillon classification are not materially very different. In brief the groups of economic activities followed by the

people of Uttar Pradesh have been suitably re-arranged in this new scheme which is based on 1951 scheme or say indirectly on Bertillon Scheme.

Analysing in detail the various schemes of occupational classification followed in this State from time to time and their comparison with International Schemes it can be stated that the International Scheme of occupational classification as evolved by the United Nations Organisation makes division of labour not according to the work which people do but according to the economic process which their work sub-serves. The Bertillon Scheme of classification of occupations clearly differentiates agricultural labour and the sub-class 'Insufficiently Described Occupations' and others have been included in the category of general labour. This class of general labour conceals all other labour under the headings such as 'Industry, Trade and Transport' which lump together the managing director of a company and the woman who carried a basket of mud from a pit to an embarkment. In fact no scheme of occupational classification can take account of all lines of distinction but the defect of Bertillon Scheme is that it has a material and not a human basis which would have been better adopted to the requirements of the economy of Uttar Pradesh. It was one of the main reasons that Bertillon Scheme which did not suit the socio-economic needs of this State had to be discontinued.

2. DEMOGRAPHIC CHARACTERISTICS OF U.P. COMPARED WITH SELECTED COUNTRIES -

Uttar Pradesh being only one of the nineteen States of

India it would have been only logical and appropriate to compare its occupational and demographic details with those of other states in India. But here in the physical, demographic and occupational details of Uttar Pradesh have been compared with those of other countries in Europe, America, Asia and Africa with a view to analyse the trend of U.P. in respect of occupational structure to examine the degree of deviations. Now a question logically arises that when U.P. is only a part of a country then why its details should be compared with those of other countries. There is absolutely no denial of this fact that Uttar Pradesh is only a part of Indian Union rather a State within the Federation of India, but it forms a significant part and occupies a place of unique importance in respect of its area and population. Compared with other countries of Europe, America, Africa, Asia and Australia one finds that the population and area of Uttar Pradesh exceeds that of many countries or is atleast equal to their's. Some of the countries compared herein are much smaller than Uttar Pradesh in respect of its area and population. Hence it appears quite appropriate to compare Uttar Pradesh with certain other countries in respect of its occupational structure. The table below compares population and area of Uttar Pradesh with certain other countries of the world.

Table No. 9.1

TABLE SHOWING AREA AND POPULATION OF UTTAR PRADESH AND CERTAIN OTHER COUNTRIES OF THE WORLD.

Country	Area sq.Km. ('000)	Population	
		Year	Nos. ('000)
Uttar Pradesh	294.4	1961	737,46
<u>Africa :</u>			
Ghana	239.0	1960	67,27
Senegal	196.0	1961	31,10
Southern Rhodesia	389.0	1962	36,18
Uganda	236.0	1959	87
Zambia	746.0	1963	34,09
<u>America :</u>			
Costa Rica	51.0	1963	13,36
Chile	2.3	1960	73,74
Equador	3.1	1962	45,15
Panama	76.0	1960	10,13
<u>Asia :</u>			
Cyprus	1.1	1960	5,74
Israel	21.0	1961	21,79
Japan	370.0	1955	892,76
Korea	220.0	1955	215,02
Pakistan	947.0	1961	902,83
Turkey	781.0	1955	240,65
<u>Europe</u>			
Austria	84.0	1961	70,74
Belgium	31.0	1961	91,90

(Continued)

Table No. 9-1 (continued)

France	547.0	1962	464,56
W. Germany	248.0	1961	539,77
Ire Land	70.0	1961	28,18
Italy	301.0	1961	506,24
Poland	313.0	1960	294,06
Spain	505.0	1960	305,25
Sweden	450.0	1960	74,95
Yugoslavia	256.0	1961	185,49
Austral a :			
Newziland	269.0	1956	21,74

Source : United Nations Demographic Year Book, 1964, Tables
8 - 9.

Figures in above table make it abundantly clear that invariably in every case cited above the area of Uttar Pradesh and its population exceeds that of other countries which have been compared above. As would be detailed in a later table the rate of annual increase in population which controls the labour supply of a region the U.P.'s rate compares favourably with those of other countries and in quite a few cases it is even lesser. The occupational pattern of a population as already stated earlier is governed by numerous factors some of which are natural while others are purely cultural. In regions where nature has not been discriminatory the entire credit for advancement of a region's economy and growth of numerous economic activities and also its urbanisation depends on cultural development. Taking rainfall, temperature and climate

no two countries are exactly similar unless they lie lengthwise within the same range of latitude where both physical and cultural factors together determine the economic engagement of the population. Even in the same country natural and physical factors differ from region to region and so differ its occupational pattern.

In the subcontinent of India, Uttar Pradesh is one of the more predominantly agricultural States. It has 74.18 percent of her population dependent on agriculture as against 69.84 percent average for the country as a whole. Based on the engagement of population in agriculture Uttar Pradesh has fourth position in agricultural population.¹ The other three States² which have larger proportion of agricultural population than Uttar Pradesh are Madhya Pradesh (76%), Orissa (79.28%) and Bihar (86.04%). Travancore Cochin has the largest proportion of agricultural population. The engagement of population in agriculture in varying degrees shows the difference in the degree of urbanisation in different States of India and also their degree of industrialisation. In non-agricultural population the State of Uttar Pradesh is behind all India average and it has very low position among States. Only Bihar, Orissa and Punjab have figures lower than Uttar Pradesh.

III. OCCUPATIONAL PATTERN OF POPULATION IN CERTAIN SELECTED COUNTRIES -

While making a detailed comparison of the occupational

1. Census of U.P. 1951, General Report, Vol. IA, p. 100.

2. The details of U.P.'s Occupational Pattern has been compared with other States in a later Chapter.

pattern of Uttar Pradesh with that of certain selected countries of the world it becomes desirable to analyse the annual growth-rate of population and annual increase in the male labour force in these countries. The table below displays the annual average percentage growth of population and that of male labour force.

Table No. 9.2

TABLE SHOWING ANNUAL AVERAGE PERCENTAGE GROWTH RATE OF POPULATION AND MALE LABOUR FORCE IN CERTAIN SELECTED COUNTRIES

Country	Average for the period	Annual Average Percentage Growth with rate of	
		Popula- tion	Male Labour Force
France	1872-1954	0.23	0.41
United Germany	1882-1939	1.20	1.50
Great Britain	1881-1951	1.00	1.20
Italy	1911-1954	0.90	0.70
Mexico	1910-1950	1.70	1.40
Sweden	1910-1950	0.70	1.10
Egypt	1929-1947	1.90	1.80
Japan	1930-1954	1.40	1.04
Uttar Pradesh	1901-1971	1.17	0.30

Source: Average calculations are based on the figures published in International Labour Review Feb. 1950 & U.P. Census Report (Provisional) 1971.

Figures in the above table clearly indicate that average annual percentage growth rate of the population of Uttar Pradesh during the last fifty or more years has not been abnormal, rather

it has been in close vicinity of United Germany, Great Britain, Italy and Japan. France has been the only exception in this case because of her very low growth rate. The growth rate of U.P. has been lower to those of Mexico, Sweden and Egypt.

In respect of growth rate of male labour force the position of Uttar Pradesh is rather more than satisfactory as it has been lower than that of all other countries referred to in the above table. The annual average percentage growth rate of male labour force in U.P. has been lower than that of France also. The average annual growth rate in labour force in most of the European and American countries has been around one percent while in Uttar Pradesh this rate has been only 0.30 percent only. Thus in absolute terms the total number of males available for employment has been lesser but due to backwardness of the economy of this State a larger proportion of even this small supply could not be gainfully employed. It is really strange that inspite of lower percentage of annual average growth rate of male labour force its total supply has been enormous in Uttar Pradesh because of higher population base and higher participation rate of males in the labour force. The table below discloses the per capita income and labour force participation rate of males in certain selected countries of the world.

P.T.O

Table No. 9.3

TABLE SHOWING PARTICIPATION RATE OF MALES IN CERTAIN SELECTED COUNTRIES ACCORDING TO THEIR LEVEL OF ECONOMIC DEVELOPMENT

Country	Per capita income in 1952-54 in ₹	Labour Force Participation Rate of	
		Total Population	Males
U.S.A.	1870	39.5	60.7
Sweden	950	74.4	67.5
U.K.	780	82.9	69.0
France	740	75.6	64.2
Japan	190	49.9	55.9
Egypt	120	79.1	65.2
Uttar Pradesh	50	39.1	92.0

- Source ; W.S. Woytinsky and E.S. Woytinsky - 'World Population and Production' - Trends and Outlook, New York, 1953, p. 62 and p. 350.
Total labour force participation rate from U.N. Demographic year Book, 1964.
Figures for Uttar Pradesh from Census Report of U.P. 1961 and Provisional Population Total - Paper I of 1971 (Supplement).
Figures of per capita income of U.P. from C.S.O's White Paper 1954.
The higher participation rate of total population in the labour force of U.K. France and Egypt has been due to lower minimum age limit for participation in labour force.

Inspite of higher participation rate of males in the labour force of Uttar Pradesh the per capita income is very low because the income of the participating males is shared by the females and dependents of the family whose participation rate in labour force of Uttar Pradesh is very very low as compared to other States of India and also of other countries of the world.

Engagement of Population in Different Occupations:

Considering the engagement of the population of different countries into numerous economic activities it can be summed up for the sake of comparability that all occupational groups of gainful economic activities can be conveniently divided into four sub-groups as under:

1. Agriculture
2. Industry
3. Trade, Commerce and Transport, and
4. Other Occupations.

It is on the basis of above group of economic activities that occupational pattern of Uttar Pradesh has been composed with certain selected countries in the following table:-

Table No. 9.4

TABLE SHOWING ENGAGEMENT OF THE POPULATION OF CERTAIN SELECTED COUNTRIES INTO DIFFERENT OCCUPATIONS.¹

Country	Percentage of Working Population engaged in			
	Agricul- ture	Indus- try	Trade, Com. & Trans.	Other occupations
France	36.5	28.6	17.4	17.5
Germany (United)	28.2	39.3	18.4	14.1
Austria	38.9	32.5	12.7	15.9
Italy	47.0	27.0	12.0	14.0
Spain	52.0	23.0	9.0	16.0
Netherlands	19.3	34.9	20.3	25.0
Norway	29.5	32.0	19.6	18.9
Sweden	24.5	36.9	19.1	19.5
Czechoslovakia	37.7	37.3	11.3	13.7
Poland	45.8	-----	----- 54.3	-----
U.K. (Post War)	32.5	44.9	18.9	3.7
Ireland	49.0	15.0	13.0	23.0
Turkey	75.0	11.0	4.0	10.0
Japan	48.0	21.0	29.0	2.0
Union of South Africa :				
European Population	18.9	26.8	29.5	24.8
Non- " "	52.7	18.5	4.6	24.2
Canada	21.2	33.5	23.6	21.7
U.S.A.	12.8	34.5	25.2	27.5
Mexico	64.4	12.7	12.0	9.9
Argentina	25.9	29.1	19.8	25.2
Brazil	67.4	12.8	9.1	10.7
Australia	15.4	34.2	24.4	26.0
Uttar Pradesh	75.3	8.0	4.0	12.7

1. Source: 'Geography and Man' by W.G.V. Balchin, Vol. I & II.
Distribution of U.P.'s working population into different
Occupations has been based on the average of 1961 population.

Among the countries with which Uttar Pradesh has been compared herewith France, Germany and Austria are by far the most important. France has always been remarkable for her varied wealth. Her wide range of physical features from rugged Alps to fertile plain, from rocky shore to the Cote d' Azur and her variety of human types give her the greatest resources of any country in Europe. Germany is a very important country of Central Europe. The development and the amazing growth of her economic condition, until 1945, seriously interrupted by the first world war can in no way be compared with that of England. In the first decade of 19th century the country was scarcely commercialised and not at all industrialised. But the population was now in a position to think of developing trade and agriculture and of the exploitation of natural wealth. Fundamental changes have taken place in this economy since 1939 when more than 42 per cent of the country was under plough and 27 percent under forest. So far Austria is concerned it is remarkable that although half of the population of the country is rural but industry is important in Austrian economy. Neglected between 1919 and 1938 it was then developed by the Germans who laid new foundation for her future advancement.

An analytical study of the figures detailed in the foregoing table of occupational engagement of population of different countries clearly reveals that position of U.P.'s economy compares favourably with Turkey and Brazil only in respect of engagement of population in agriculture. Though

percentage of population engaged into industrial occupations is very low in Ireland (15.0%), Turkey (11.0%), Mexico (12.7%) and Brazil (12.8%) yet the place of Uttar Pradesh is lowest of all as this State is too backward even among other States of India and occupies practically no place on the industrial map of the world. In employment of population into commerce and transport the economy of Uttar Pradesh is similar to that of Spain (8.0%), Turkey (4.0%), Non-European Population of Union of South Africa (4.6%) and in employment into other occupations. Uttar Pradesh is nearer to United Germany (14.1%), Austria (15.9%), Italy (14.0%), Czechoslovakia (13.7%) and Brazil (10.7%) with U.P.'s 12.7% of total working population in this sector. Post-war U.K. with 3.7% and Japan with 2.0% of total working population in other occupations are placed lower to Uttar Pradesh.

The World Map facing this page displays occupational engagement of working population of certain selected countries in comparison with that of Uttar Pradesh.

It can easily be concluded from the detailed figures of occupational engagement of population of certain European, American, African, Australian and Asian countries displayed in the table referred to earlier that although pattern of occupational engagement of population of Uttar Pradesh resembles with some countries in one economic activity or another but Uttar Pradesh stands in no way similar to those countries because of her economic backwardness, lesser degree of urbanisation, under-development of agriculture, lesser - develop-

ment of agriculture, lesser - development of transport and communication systems. All these factors are basically responsible for lower economic advancement of this state which suffers with higher degree of unemployment, lower per capita income, lower participation rate of total and women population in the labour force of the economy.

It may not be much beyond the point to state here that after 1965 Japan a highly industrialised economy in the East has been experiencing shortage of labour especially in the active age groups. Japan's small establishments bear the impact of this new demographic trend. They were so far absorbing the younger group entrants to the labour force at low wages - a phenomenon that is painfully widespread in whole of Uttar Pradesh, in our villages, and cities irrespective of the directive principles of India's constitution to eliminate exploitation and deprivation from which our teeming millions in the young age group suffer. Yet the path of economic development is not very smooth. Numerous social problems will emerge as a result of the disorganisation of small and even medium sized establishments which form substantial sector of the economy of Uttar Pradesh. If experience of other countries is a guide the decrease in the number of young workers in the labour force will reduce labour mobility and make the employment pattern relatively flexible. These are some of the problems which will have to be faced and solved. The logic of Japanese economic development may not be acceptable to Uttar Pradesh or to India in view of changed economic conditions of our economy. The broad trends of employment in the

face of high rates of growth of population in many Asian countries including India is expected to be more or less similar. It has been estimated that during the period 1960-1980 more than 300 million jobs will have to be found in the ECAFE region to provide merely for new entrants to the labour force as distinct from the existing job seekers or those who may be interested in change to better their lots.

Japan is not the only economy in the world which has been experiencing shortage of labour rather labour is everywhere inadequate and it would be of value to know as to what the available supply is and in what directions it is contracting or expanding. Since the economy of Uttar Pradesh is in no way totally or even partially fully similar to any other country of the East or the West, it may not be possible to treat occupational pattern of any country as ideal to improve this economy. The occupational problems of this State are peculiar in themselves and this maldistribution will continue for some more time to come. Thus instead of complete reshuffling of occupational pattern of U.P. in conformity to those of other countries, it may be more experiencing to improve the productivity of those who engage in particular occupations within the occupation rather than outside it.

CHAPTER X

PLANNED ECONOMIC GROWTH AND OCCUPATIONAL PATTERN OF UTTAR PRADESH

In March 1971 the State of Uttar Pradesh like rest of India completed twenty years of planned economic development. This period includes fifteen years of the first three Five Year Plans, few years of pause in planning and also few years of the Fourth Five Year Plan of State's economic development. The development plans of Uttar Pradesh have been formulated and executed in terms of broad based objectives laid down by the Planning Commission of India for increasing national income per capita and providing more and more employment opportunities. Since the expansion of the State's economy and execution of various development schemes in different plans have always resulted in increase as well as diversification of employment opportunities, an attempt has been made to analyse in this chapter the progress of employment into different sectors of State's economy and to project a trend for future. Various statistical details have been compared with 1951 when the First Five Year Plan was put into execution. It is with this end in view that the present chapter has been sub-divided into four sections -- (1) State's economy, (2) Objectives of Planning; (3) Progress of employment opportunities and (4) Future trend of employment in Uttar Pradesh.

I - State's Economy

With a population of 88.4 millions in 1971 the State of Uttar Pradesh stands as the most populous State of India. Out of total population of 88.4 millions as many as 28.4 million persons have been returned as workers which comes to 32.2 per cent of the total population. The number of male and female workers during the same period stood as 24.8 millions (52.8%) and 3.6 millions (8.8%) respectively. Since Uttar Pradesh like rest of the country is predominantly an agricultural State most of the persons are engaged in agricultural pursuits. There are 15910591 cultivators, 5,497,317 Agricultural labourers and only the remaining workers, i.e., 7008963 persons are engaged in activities other than cultivation and agricultural labour. These workers form 56.0%, 19.3% and 24.7% respectively of the total working population of Uttar Pradesh.

Looking at the figures of workers and non-workers it can be stated that in the beginning of the 1st Five Year Plan i.e., in 1951 out of total population of 63.2 millions only 26.4 millions or say 41.76% were workers and the remaining population of 36.8 millions was composed of non-workers. Non-workers formed 58.24% of the total population in the year 1951 of which 41.75% of males and 76.37 percent of the females were non-workers. The following table shows the regional distribution of population and non-workers in the year 1951.

Table No. 10.1

TABLE SHOWING THE REGIONAL DISTRIBUTION OF TOTAL POPULATION AND NON-WORKERS IN THE YEAR 1951.

Region	Percentage Distribution of			
	Area	Popula- tion	Non- workers	Workers
1. Hill	17.4	4.0	2.3	6.6
2. Western	27.9	34.3	38.1	27.9
3. Central	15.6	17.8	12.9	17.2
4. Eastern	29.1	39.3	38.0	42.4
5. Bundelkhand	10.0	4.6	8.7	5.9
6. Total U.P.	100.0	100.0	100.0	100.0

The above table, figures of which are shown in Map No. 26 relates to the regional economy of Uttar Pradesh and is indicative of the fact that the Eastern region of Uttar Pradesh has the highest percentage of total area (29.1%), highest percentage of population (39.3%), highest percentage of workers (42.4%) and highest percentage of non-workers (38.0%) also. Bundelkhand region has the lowest share in area (10.0%). Hill region has the lowest percentage of population (4.0%) and also the lowest percentage of non-workers (2.3%) and Bundelkhand region has the lowest percentage of workers (5.9%). It is in this background that the progress of employment has been studied in this chapter.

II - Object ves of The Planning

In this State also as elsewhere planning has been considered as a necessary instrument to create conditions for acce-

leration of economic growth and to achieve an equitable and balanced development. In this respect positive duty has been cast by the constitution on the State to strive to promote the welfare of the people. In brief, planning includes all the economic, political and the social incentives. "Behind the development plans that are drawn up, is the vision of the future, even as the Indian people had a vision of freedom and independence during the long years of the national struggle as there is faith and confidence in that future. Fully conscious of existing difficulties, the people have also the conviction that these difficulties will be overcome."¹

The First Five Year Plan aimed to rehabilitate the economy from war damage, famine and partition dislocation and building up institutions which would help the economy to grow in the desired direction. The Second Five Year Plan sought to carry the process further, accelerate the rate of growth and initiate the strategy which would assist in bringing about such structural changes in the economy as seemed necessary if the longterm objectives of the development was to be achieved. The Third Plan was conceived as the first stage of a decade or more of intensive development leading to a self reliant and self-generating economy. It sought to ensure a minimum level of living to every family in the State while narrowing economic and social disparities.

The Fourth Five Year Plan which should normally have

1. Govt. of U.P. - Fourth Five Year Plan - A Preliminary Memo, p. 23.

followed the Third Plan could not be implemented as such for certain unavoidable reasons and a period of three Annual Plans intervened between the Third Plan and the Fourth Plan which is now being implemented. Among other Schemes of balanced economic growth the Fourth Five Year Plan aims 'to maximise employment opportunities compatible with the proposed growth rate and as far as practicable, to hold the back-log of unemployment at its present level if it be not possible to reduce it'.

Serious and practical thinking to reduce unemployment became necessary because the employment position has been deteriorating in the State from one plan to another. The number of unemployed persons rose from about 9.5 lakhs at the beginning of the Second Plan to 13.0 lakhs at its end. The Third Plan closed with the number of unemployed rising to 21 lakhs. The situation deteriorated further during the three years intervening between the close of the Third Plan and the beginning of the Fourth Plan. The size of the back log of unemployed persons at the beginning of the Fourth Five Year Plan was about 23 lakhs.

The extent of unemployment no doubt is very great in this State but that is not all. The State of Uttar Pradesh also suffers from extensive underemployment as well. The economy of the State as already stated earlier is predominantly agricultural and its industrial structure is still in infancy. Since our industrial base is incapable of improving the economy, poverty, unemployment and low production have become order of the day. Under the circumstances prevailing at present the economy of U.P. can be characterised by lopsided industrial

growth, low rate of growth, increasing pressure of population and fast growing unemployment. Our industrial base is limited. More than 50% of the population of this State lives in under-developed areas.

Although unemployment prevails everywhere but it is more ~~fast~~ in urban areas than in rural areas. Then there is more of underemployment in rural areas where people do not have enough of work to keep them engaged on a wholetime basis and provide enough of income to meet their basic needs. More and more employment opportunities are needed in urban areas for professionals, middle level technicians, trained but without certificate tradesmen and craftsmen, skilled, semi-skilled, uneducated and unskilled labourers. Unemployment among educated persons is more pressing in urban areas than in rural areas. In rural areas employment facilities are needed for small farmers, farmers of sub-marginal land, landless labourers, village craftsmen and other educated persons who are either totally unemployed or partially under employed.

Among the unemployed professionals, special mention may be made that of Engineering and Agricultural graduates and diploma holders. In 1961 there were only 3000 Engineering graduates whose number swelled to 10,000 in 1969 and in the same year there were 20,000 diploma holders in this State. Totalled together this figure comes to more than 10% of this kind of professionals in India. Even at present more than 2600 Engineering graduates and 56,00 diploma holders have no work and some of them are without work for the last few years.

In spite of this situation Engineering education had very rapid expansion during the second Five Year Plan.

Magn tude of Unemployment :

Although different estimates of unemployed persons have been made from time to time during the period of planned development but these figures are not very reliable. Estimates have also been made about future prospects of providing employment but these are also not very reliable. Prof. Dantwala¹ has indicated that the magnitude of unemployment is so wide that entire problem cannot be studied in a consolidated manner. He opined that the extent of unemployment should be estimated separately in accordance with age, sex, rural, urban residence, socio-economic condition of the unemployed and his education. It is on this basis that the magnitude of unemployment can be correctly studied. The table below shows Government estimates of unemployment during different five year plans:

Table No. 10.2

TABLE SHOWING ESTIMATES OF UNEMPLOYMENT IN UTTAR PRADESH
(Figures in Lakhs)

Particulars	Second Plan 1956-61	Third Plan 1961-66	Fourth Plan 1969-74
Before the execution of Plan	9.46	13.0	24.0
New entry to labour force	16.59	27.2	37.0
Total employment opportunities needed during plan period	26.05	40.2	61.0
Targets for Employment	Not fixed	21.5	Not yet fixed
Availability of Employment	13.05	19.0	29.0
Unemployment at the end of the Plan	13.00	21.0	32.0

Source: Unemployment in U.P., p. 2 (U.P. Government).

1. Report of the Committee on Unemployment (Govt. of India) Under the Chairmanship of Prof. Dantwala.

The planning authorities of Uttar Pradesh have also projected the population and labour force upto 1981 which stands as under;¹

Table No. 10.3

TABLE SHOWING PROJECTION OF POPULATION AND LABOUR FORCE OF U.P.

Year	Figures in Lakhs	
	Population and Labour force in U.P.	
	Population	Labour Force
1971	883.6	357.3
1976	1031.8	406.5
1981	1130.9	466.2

It is clear from the above table that in next 10 years the labour force would increase at an annual growth rate of 10 lakhs per annum which proves beyond doubt that the unemployment problem before us is very huge and the Government will have to take very bold measures to solve the same. Taking everything into account related with increase in population and increase in unemployed persons it can be stated that in this respect the fundamental problems of the economy of Uttar Pradesh are twofold:-

1. Increasing unemployment; and
2. Maldistribution of occupation.

The first problem can be solved by devising measures to check growing unemployment and increasing more and more

1. U.P. Government: 'Unemployment in U.P.', p. 3.

employment opportunities. The second problem could be solved by making appropriate redistribution of the occupational pattern of the population so as to maximise national dividend with existing manpower resources. The problem of occupational maldistribution has been dealt in a subsequent chapter of this study. Herein an analysis has been made of the short and long term measures of the Government of Uttar Pradesh to reduce the quantum of unemployment in the light of prospective magnitude of unemployed persons which might grow during the next one decade or so.

Among the long term measures which the State Government have taken to reduce unemployment special mention may be made that of control of birth rate by family planning device, use of modern technology to exploit more and more natural resources leading to increased employment potential. With a view to apply check on ever growing supply of labour force particularly that of educated and trained one the Government must prescribe the minimum age for appearing in various educational and training examinations. The present step of the Government in prescribing minimum age of 14 for appearing in the high school examination appears to be a measure in the desired direction. Such a measure would reduce the early entry into the labour force of such persons who do not continue their education after passing High School. Similar steps should be taken for other educational and training examinations also.

As to other measures for expanding employment opportunities the Government of Uttar Pradesh have taken steps to

develop agriculture, establish factories, and other agro based industries, village industries and crafts, popularise small scale and intensive farming. Government have also taken measures to provide complimentary production for bigger industrial units in the small sectors. Efforts have also been made to develop medical, banking and other services in rural areas. There is also an urgent need that in the long run education must be planned in a manner as to provide self employment and reduce sectoral unemployment. Then the Government must establish on a large scale proper consultative and guidance services for educated unemployed.

The short term measures for reducing the quantum of unemployment should be such as would provide employment within the target period of time with the available resources both in rural as well as in urban areas. The short term measures in urban areas should include the development of small industrial and machinery units to engage middle level technicians. In rural areas landless labourers must be provided employment in the construction of roads and houses both Kaccha and Pucca.

To sum up there should be proper planning of education and co-ordination of the placement of educated unemployed. Uttar Pradesh though a progressive State suffers from maldistribution of occupations. The impact of planned progress on occupational pattern of Uttar Pradesh should be studied with a view to examine Governmental measures to remove unemployment of employable population.

III - Progress of Employment Opportunities

Although entire India has been caught in the grip of unemployment but the situation has become particularly alarming in Uttar Pradesh because of her fast increasing population. The Government of Uttar Pradesh are not unaware of the gravity of the situation and have made detailed study of the magnitude of unemployment from time to time. And now the Government have realised that it is dangerous for the economy to allow the unwarranted growth of unemployed population. This has already been stated earlier and may be repeated once again that one of the fundamental objectives of the developmental planning is to create such conditions as would provide productive work to ever increasing population of the region concerned. The directive principles of the constitution of India also lays emphasis on such activities of the State. The Planning Commission has also strived to fulfil the same objectives yet even after twenty years of planning Uttar Pradesh has yet not reached that stage of development where the economy could provide work to everybody. As such the army of unemployed persons has been mounting along with every increase in population year after year.

As regards the progress of employment opportunities it has been agreed in all quarters that employment is basically a function of investment. It has already been stated earlier that almost every increase in national income of Uttar Pradesh has been eaten away by increase in population leaving practically no balance for investment into the economy. The per

capita outlay on planning development has also been lowest in U.P. Investment no doubt increases the rate of growth and thereby the level of employment. But this should not be the entire story of employment creation. The employment opportunities can also be created to the maximum by keeping investment at a particular level with the help of making necessary changes in the technique and quantity of production. Hence it is essential that the planning authorities must remain constantly in touch with such sectors of the economy where production can be increased either by fuller utilization of unutilised capacity or by improvement in the technique of production both of which will necessarily increase employment potential without any additional increase in capital investment.

Then the Government must provide orientation of labour in agriculture, industry, irrigation, animal husbandry, soil conservation, forestry, road construction etc., all of which will invariably create more employment in their respective fields. The Government must give priority to only such sectors of the economy for which trained labour may be available.

The successful implementation of plan targets in the field of employment shows the extent of available manpower utilisation and conversely the degree of unemployment hidden or apparent in the economy of the State. In 1961 the total employment^{able} population in the age group 15 - 59 was 24.5 million out of whom 24.4 million were workers and the remaining 823330 (79127 males and 2306 females) were unemployed. Thus only 0.33 percent of the workable population of the state was

unemployed. The highest proportion of employable non-workers to total employable population occurred in the districts of Kanpur (1.24%), Lucknow (1.16%) and Dehra Dun (1.0%) which had also the highest urban population. Only 3.9% of the employable non-workers were females and the remaining were males. The highest proportion of unemployed females was in Pilibhit district followed by Deoria, Farrukhabad and Banda. In the other extremes were Uttar Kashi and Kheri where census reports recorded no unemployed female seeking work.

The table below provides percentage increase in workers and non-workers of Uttar Pradesh.

Table No. 10.4

TABLE SHOWING PERCENTAGE OF NON-WORKERS TO TOTAL POPULATION

Year	Total Population	Non-workers	% of non-workers to total population
1951 Persons	63,218,742	36,819,128	58.24
Males	33,098,860	13,819,370	41.75
Females	30,116,876	22,999,755	76.37
1961 Persons	73,746,401	44,896,260	60.88
Males	38,634,201	16,153,841	41.81
Females	35,112,200	28,742,419	81.86
1981 Persons	88,364,779	59,947,908	67.80
Males	46,922,872	22,145,513	48.20
Females	41,441,907	37,802,395	91.20

Looking at the figures in the above table it is clear that the percentage of non-workers to total population which stood at 58.24% in 1951 increased to 60.88 percent in 1961 and reached the level of 67.80 per cent in 1971. The Graph No. ¹³ facing this page shows percentage increase in male, female and total non-workers during the plan period of 1951-1971. During the same period of planned development, i.e., from 1951 to 1971 the total population recorded a percentage increase of 39.7 percent over the figures of 1951 and increase in workers took place at 60% with the same base of 1951. The figures dealing with percentage increase in total population and total workers on the base 1951 stood as under :-

Table No. 10.5

TABLE SHOWING PERCENTAGE INCREASE IN TOTAL POPULATION AND TOTAL WORKERS DURING THE PLAN PERIOD 1951-1971

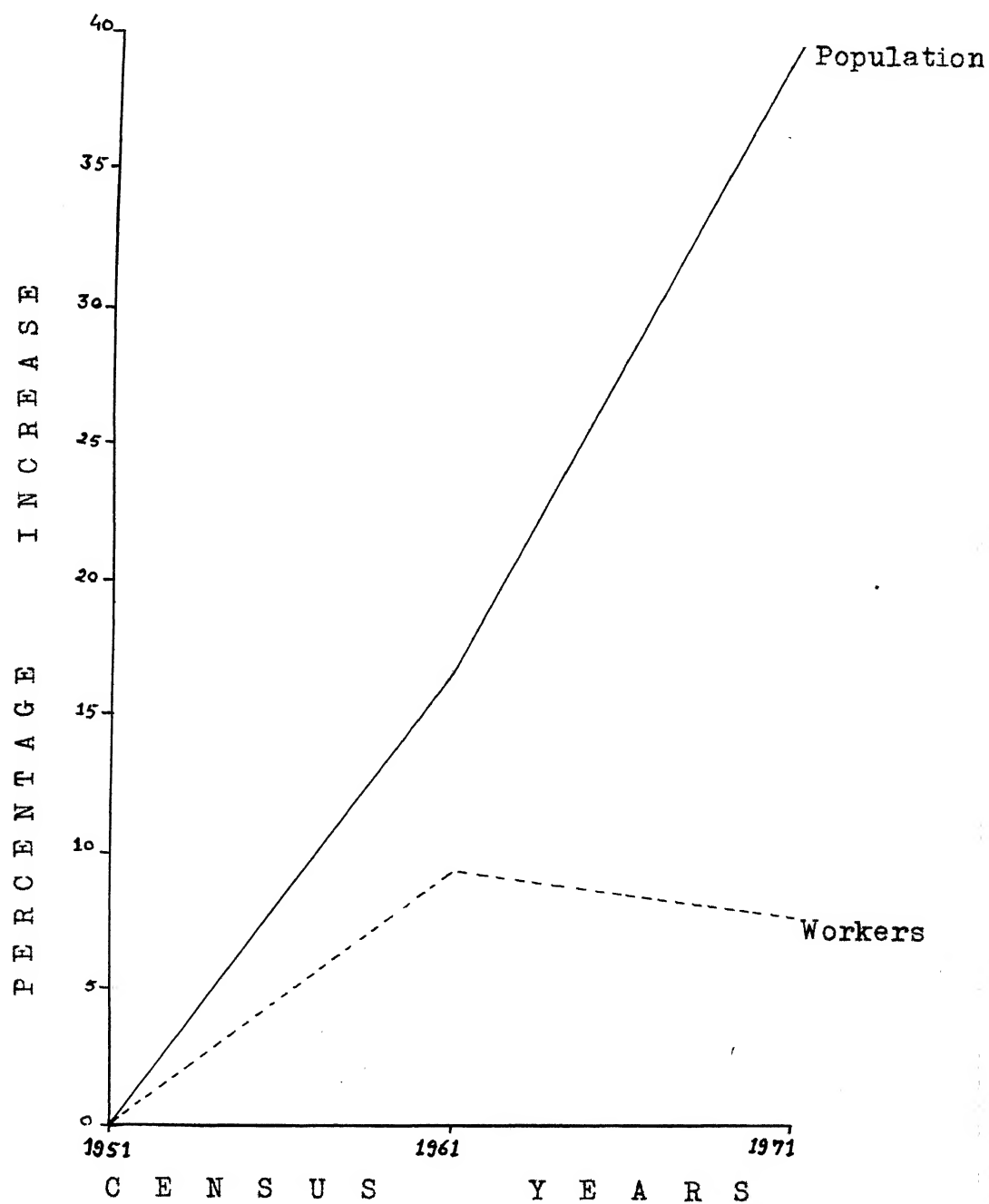
Year	Population ('000)	% in- crease over 1951	Workers ('000)	% increase over 1951
1951	63216	-	26838	-
1961	73746	+ 16.6	28850	+ 9.3
1971	88365	+ 39.7	28417	+ 6.0

The above increase in population and workers of Uttar Pradesh is shown in the accompanying graph ^{on the next} facing ~~this~~ page.

The increase in population of Uttar Pradesh during the plan period of 1951-1971 has not been evenly distributed in different regions. The State as a whole showed a total net

FIGURE No.14

DIAGRAM SHOWING PERCENTAGE INCREASE IN WORKERS AND
TOTAL POPULATION DURING THE PLAN PERIOD 1951to1971



increase of 39.7 percent over the figures of 1951 but it varied from 33.6 percent to 54.0 percent in different regions. The central region of the State has been in perfect conformity with the State average where total increase was 39.7 percent. The highest increase was recorded in Bundelkhand region (54.0%) followed by Hill region (51.6%). The western region with 43.4% increase stood as third in order of increase. The Eastern region with 33.6 percent increase closely followed the central region and was in the incinity of State average. The regional distribution of increase in population during the plan period stood as under;

Table No. 10.6

TABLE SHOWING PERCENTAGE INCREASE IN POPULATION OF U.P. (REGION-WISE) DURING PLAN PERIOD 1951-71.

Area / Region	Increase in population 1951-71	
	Nos. (000)	Percentage
1. Hill Region	+ 1290	+ 51.6
2. Western Region	+ 9422	+ 43.4
3. Central Region	+ 4478	+ 39.7
4. Eastern Region	+ 8354	+ 33.6
5. Bundelkhand Region	+ 1560	+ 54.0
Total (U.P.)	+ 25149	+ 39.7

Figures in the above table are shown in the Map No. 27 facing this page.

The percentage increase in working population during the plan period was only 6 percent as against 39.7 percent increase

in total population. Thus the total increase in workers found approximately 15 percent of the total increase in population. The percentage increase in workers which stood at 6 percent for the State as a whole showed considerable fluctuations in different regions. No single region stood in the vicinity of State average. Percentage increase in workers of different regions varied from - 2.5 to + 17.1 percent. The highest increase took place in the western region where it was + 17.1 percent followed by the central region with + 13.3 percent. The remaining three regions recorded negative increase during the same period. The eastern region was at the last rung of the ladder with increase in workers at - 2.5 percent followed by - 2.1 percent in Hill region and - 0.4 percent in Bundelkhand region. The regional distribution of percentage increase in workers which is shown on the Map No. 28 facing this page appeared as under.

Table No. 10.7

TABLE SHOWING PERCENTAGE INCREASE IN WORKERS OF U.P. (REGION-WISE) DURING THE PLAN PERIOD 1951-71.

Region / Area	Increase in workers	
	Nos. (000)	Percentage
1. Hill Region	- 34	- 2.1
2. Western Region	+ 1344	+ 17.1
3. Central Region	+ 607	+ 13.3
4. Eastern Region	- 293	- 2.5
5. Bundelkhand Region	- 5	- 0.4
Total (U.P.)	+ 1578	+ 6.0

The percentage of non-workers to total population which followed an increasing upward trend during the period 1951 to 1971 did not remain the same from region to region. In the year 1971 as already stated above the percentage of non-workers to total population was 67.8%. Distributed among different economic regions it has been highest in the Western region (70.3%) followed by Bundelkhand region (67.7%), Central region (64.8%) and Eastern region (63.6%). The Hill region had the lowest percentage of non-workers to total population placed at 57.1%. The following figures show regional distribution of non-workers of Uttar Pradesh during the plan period;

Table No. 10.8

TABLE SHOWING REGIONAL DISTRIBUTION OF NON- WORKERS

Region	1951		1971	
	No. of non-workers	% of total population	No. of non-workers	% of total population
1. Hill	868	34.5	2192	57.1
2. Western	13867	63.8	22145	70.3
3. Central	7121	59.6	10589	64.8
4. Eastern	13474	54.3	22122	63.6
5. Bundelkhand	1489	51.5	2900	67.7
Total (U.P)	36819	58.2	59948	67.8

The percentage of non-workers has increased during the plan period not only for the State as a whole but it has increased invariably in every economic region. The overall increase in non-workers has been only 9.6 percent for the

Table No. 10.10

TABLE SHOWING PERCENTAGE INCREASE IN POPULATION AND WORKERS OF DIFFERENT REGIONS OF UTTAR PRADESH DURING THE PERIOD 1951-1971

Region	Variation in population		Variation in workers	
	Nos. ('000)	Perce- tages	Nos. ('000)	Perce- tages
1. Hill	+ 1560	+ 54.0	- 5	- 0.4
2. Western	+ 4478	+ 39.7	+ 607	+ 13.3
3. Central	+ 1290	+ 51.6	- 34	- 2.1
4. Eastern	+ 8354	+ 33.6	- 293	- 2.5
5. Bundelkhand	+ 9422	+ 43.4	+ 1344	+ 17.1
Total (U.P.)	+ 25149	+ 39.7	+ 1578	+ 7.7

The comparative position of the tables of percentage increase in workers and non-workers indicates the fact that though the percentage increase in total workers showed decreasing trend the percentage of non-workers always showed an increasing trend.

IV - Future Trend of Unemployment

The planning authorities of Uttar Pradesh have contemplated that the State might be faced with a bigger unemployment problem during the period of the Fourth Five Year Plan and also in years to come. It has been estimated that out of 23 lakhs unemployed persons in U.P. at the beginning of the Fourth Five Year Plan about 7.70 lakhs were in urban areas and the remaining 15.34 lakhs were in rural areas. The new entrants to the labour force during the period of Fourth Plan are estimated

in the neighbourhood of 37 lakhs the details¹ of which are as under:

Period	1969 - 1974	
Additions in the Population of the age-group 15-59 ('000)	Males	3088
	Females	2932
	Persons	6020
Participation in the labour force ('000) in the age group 15-59	Males	9337
	Females	2857
	Persons	12194
Net addition to the labour force in the age group 15-59 ('000)	Males	2883
	Females	838
	Persons	3721

Above calculations are based on the population projections of the Expert Committee appointed by the Planning Commission and the participation rates indicated for the State in the population census of 1961. It has also been estimated that the State's labour force may increase by about 45 lakhs during the Fourth Five Year Plan. Thus the mean of the two estimates come to 41 lakhs ($37 + 45 = 82 - 2 = 41$) and the same may be taken as the figure of unemployed persons during the Fourth Plan for whom employment opportunities need be developed to absorb them into different economic sectors of the State. Inclusive of unemployed backlog and net additions to the State labour force, the total job requirements for full employment by the end of the Fourth Plan will thus come to 64 lakhs (23 lakhs + 41 lakhs). This figure of 41 lakhs

1. Govt. of U.P. - Fourth Five Year Plan- Preliminary Memo, p. 27.

forms 7 percent of the total working force of the year 1961 (28850000) and 6.9% of 1971 (28417000) but is only 10.9 percent of the total non-workers of 1961 and 14.6% of the total non-workers of 1971. On an average it forms 21.5 percent of the total population of U.P. for the year 1971 which comes to the fact that out of 20 persons (men, women and children) one (employable) remains unemployed. The total job requirements of 64 lakhs to provide full employment will mean that entire economic opportunities should be geared at a very high level.

Taking into account this high magnitude of unemployed labour force of 64 lakhs it may not be possible to work out a complete solution within a short period of Fourth Five Year Plan. If the unemployment position obtaining at the beginning of the Fourth Plan could be prevented from further deterioration and the unemployed back log at the end of the Fourth Plan held steady at level, this in itself would be a major achievement. Much of the success would depend on the tempo of the growth of the State's economy during the Fourth Plan.

Considering the investment aspect of employment the proposed net investment of Rs 2800 crores during the Fourth Plan may generate employment for about 61 lakh persons which will alter the working population pattern of the State and make a shift of employable population from agricultural to non-agricultural occupations. The table below displays the changes in occupational pattern of Uttar Pradesh as compared with 1951 as a result of economic efforts of the Government during the plan period of 1951-1971.

Table No. 10.11

TABLE SHOWING OCCUPATIONAL PATTERN OF WORKING POPULATION DURING THE PERIOD 1951-1971

Details	Percentage of total workers in		
	1951	1961	1971
1. Cultivators and Agricultural labourers	75.63	75.20	75.30
2. Factory Establishment and small scale Industry	13.02	14.04	24.70 ¹
3. Transport & Communication	1.17	1.38	
4. Others	10.18	9.38	
Total	100.00	100.00	100.00

Figures in the above table clearly show that there has not been any significant diversification of occupational pattern of U.P. as a result of implementation of five yearly development plans during the last twenty years. In the year 1971 as high as 75.3 percent of total working population was engaged in agriculture which was a little higher than in 1961 (75.20%) and only a little lesser than in 1951 (75.63%). Similarly occupations in other sectors have not much improved. Yet it is expected that shift from agricultural to non-agricultural sector would bring more prosperity to the economy, as contribution of other sectors to total national dividend of the State has been comparatively more significant. Inspite of the fact that occupations in other sectors of economy are

1. Other classified details of workers for 1971 are not yet available (March 1971).

CHAPTER XI

OCCUPATIONAL PATTERN OF U.P. AND OTHER STATES OF INDIA : A COMPARATIVE STUDY

It has already been mentioned earlier that the economy of Uttar Pradesh which is characterised by high birth rate, low death rates, low production, low per capita income suffers from maldistribution of occupation. Though no pattern of occupational distribution can be described as ideal because different nations have acquired high degree of economic efficiency and high per capita income with different occupational pattern. Similarly it may not be justified to say that agricultural countries have a poorer economic growth rate and industrial countries a higher one. True, U.S.A., Canada, Switzerland, Newzealand and Australia and U.S.S.R. have very high national income per capita but all of them do not have industrial lease. Canada, Australia, Sweden, Norway are mostly agricultural yet they possess high degree of economic perfection. United Kingdom which enjoys the reputation of being ideally industrialised has lesser per capita income than Sweden a country with agricultural base. The occupational pattern of certain European and Asian countries has already been compared earlier to analyse the prospects of Uttar Pradesh. In this chapter an attempt ^{has been made} to compare the occupational pattern of Uttar Pradesh with other States of India

and also with the average of India to see how far occupational pattern of this State can be modified to obtain the maximum economic progress and per capita income with the available labour force in a given schedule of time. It is with this end in view that the present chapter has been divided into five subsections -- (i) occupations and economic advancement, (ii) occupational pattern of U.P. and national income per capita; (iii) comparison of occupational pattern of U.P. with that of other States in India; (iv) suggested occupational pattern for Uttar Pradesh; and (v) contribution of agriculture in economic growth of Uttar Pradesh.

I - Occupations and Economic Advancement.

The problem of ideal distribution of occupations of the society arises because nature has been discriminating in providing its resources to different regions of the earth. People keep themselves engaged in different activities according to their capabilities and conveniences to support themselves and their families in accordance with established norms of the society. And every individual wants to maximise his earnings. So do the nations which want to distribute the population of the region in such a manner as to maximise the national income per capita and also the national dividend.

A perfect and ideal occupational pattern would require that each individual has an opportunity for the full development of his ability. It also requires that the available man power is utilised in industry and occupation in accordance with the abilities of each individual and the requirements of

each job and that continuous employment be assured to each man and woman willing to work. Thus among the fundamental objectives of occupational distribution of population the following three may be described as more important;

(i) Maximising potentialities of each person of maturing age to the utmost of their talents, skills and social as well as individual capacities by proper education and suitable employment thereafter.

(ii) Efficient conservation and utilisation of man-power -

It means that man power shall be employed where and when it can make the greatest contribution and that must not be stockpiled like other commodities (all people in one occupation e.g., agriculture in U.P.) and it shall not be used too fast (only in army).

(iii) Maximisation of national production and prevention of waste by a judicious combination of four factors of productivity i.e., $P = N \times S \times T \times R^1$.

(iv) High level of employment by preparing in advance the manpower utilisation schemes showing the anticipated volume and distribution of national manpower in relation to the anticipated volume and distribution of the demand for it.

The problem of ideal distribution of man power into different occupations became still more important during and after the Second World War when most of the economies in India

1. Agarwala, B.L. - 'Organisation of Manpower in India' Alld. 1961, p. 2- Equation of Productivity by Prof. Wilbert More.

P = Total Population, N = Number of Employees; S = Skill, T = Time and R = Rate of output.

as well as those of other countries became paralysed. Hence the need to rehabilitate the economy in the minimum possible scheduled time with limited available material and human resources compelled the planners to think in terms of ideal occupational pattern for the population. In an ideal occupational distribution of the population it is not enough to consider the present size of the population but also such population changes (transfer of manpower from one sector to other sectors of production) which may result from the implementation of development plans.

It has already been stated that no pattern of occupational distribution can be treated as ideal because with the same pattern different countries have different level of income and production growth and also with different occupational pattern the same level of income growth. The figures in the following table show national income per capita and occupational pattern of some countries;

P. T. O.

Table No. 11.1

TABLE SHOWING PER CAPITA NATIONAL INCOME AND OCCUPATIONAL PATTERN OF SOME COUNTRIES

Country	National Income per capita in \$	Percentage of Population engaged in			
		Agri- culture	Indus- try	Com. & Trans- port	Others
U.S.A.	1870	12.8	34.5	25.2	27.5
Canada	1310	21.2	33.5	23.6	21.7
Australia	950	15.4	34.2	24.4	26.0
France	740	36.5	28.6	17.4	17.5
Norway	740	29.5	32.0	19.6	18.9
U.K.	780	32.5	44.9	18.9	3.7
Germany	510	28.2	39.3	18.4	14.1
Netherland	500	19.3	34.9	20.3	25.0
Italy	310	47.0	27.0	12.0	14.0
Union of South Africa	300	18.9	26.8	29.5	24.8
Brazil	230	67.4	12.8	9.1	10.7
Mexico	220	64.4	22.7	12.0	9.9
Turkey	210	75.0	11.0	4.0	10.0
Japan	190	48.0	21.0	29.0	2.0
India	60	69.7	10.6		19.7
U.P.	35	75.6	10.1		14.3

Source : Calculations are based on figures published in U.N.O.'s Demographic Year Book, 1964 and Cases Report of U.P.

Looking at the above table only two countries U.S.A. and Canada stand 1st and 2nd respectively in the world. In matters

of national income per capita U.S.A. has 1870 \$ and Canada 1310 \$ per capita but there is material difference in the occupational pattern of two countries. In agriculture Canada has 21.2% of total working population while in U.S.A. it has only 12.8%. Then in the same line stands U.K. with much less national income per capita and higher percentage of population in both the sectors of agriculture and industry.

U.S.A., Canada, Australia, Norway and Netherlands all these countries have between 30 to 35 percent of their working population in industry but the percentage of their working population materially differs in agriculture which ranges from 12.8% in U.S.A. to 29.5% in Norway. The level of industrial population remaining the same and agricultural population at much higher level rather highest in this group has national income lower than that of U.S.A., U.K., Canada, and Australia. Thus it can be categorised that it is not the percentage or volume of population's engagement but its comparative productivity which adds to the national income and product growth of a nation.

Brazil, Mexico, Turkey, India and Uttar Pradesh, all these regions have more than 60% of the total working population engaged in agriculture and varying percentages in industry but there exists great variation in their national income and economic growth. In U.P. about 75% population is engaged in agriculture and less than 10% in industry - its national income per capita and also economic growth has been lowest of all the regions compared herewith.

Facts quoted above proved beyond doubt that economic advancement of a nation or that of a region depends not only on the occupational pattern of the population alone but also upon productivity per worker in different production sectors. Thus there is nothing to worry if the State of Uttar Pradesh is predominantly agricultural because many countries with much less population in agriculture and higher percentage in industry also suffer from economic backwardness. It may be appropriate to say that no occupation is more important or less important than others. If the natural resources of a region permit the development of agriculture it is but natural that higher percentage of the population will be engaged in agriculture alone. Since nature has been discriminating in blessing the regions with different natural resources, occupational engagement of the population is bound to differ from region to region. It is the duty of the economic guardians of the region to workout productivity per worker in the dominating productive sector and try to improve the same with given resources and available opportunities.

II - Occupational Pattern of U.P. and National Income per capita:

The national ^{ome}income of a region is the net product of goods and services produced by the inhabitants of that area within a given period of time. Although calculation of national income of India and that of her different States has been made from time to time but most of these estimates are not very reliable. To give a serious thought to the problem the Government of India appointed the National Income Committee in 1949 under the Chairmanship of Prof. P.C. Mahalanobis to work out a

scheme for evaluation of national income and also to evaluate the same on a scientific basis. This Committee submitted its final report in 1954. Now authoritative and reliable estimates of national income are available from the Central Statistical Organisation of India assisted by the Directorate of Economics and Statistics of the State Government.

The table below provides figures of total national income and per capita national income of Uttar Pradesh for the past few years.

Table No. 11.2

TABLE SHOWING TOTAL PER CAPITA NATIONAL INCOME AT CONSTANT (1960 - 61) PRICES.¹

Year	Total National Income (Crores)	Per capita National Income (Rs)
1960 - 61	1799	246
1965 - 66	1996	245
1969 - 70	2261	253

Looking into the sectoral origin of national income the figures for the period 1961 to 1970 stand as under;

1. Statistical Diary 1971 by Directorate of Economic and Statistics, U.P., p. 40.

Table No. 11.3

TABLE SHOWING PERCENTAGE DISTRIBUTION OF TOTAL STATE INCOME BY INDUSTRIAL ORIGIN¹ AT CONSTANT PRICES (1960 - 61).

Year	Agriculture and allied sectors	Mining, Quarrying, large and small scale manufacturing & construction	Commerce, Transportation and communication	Other services
1960-61	60.9	10.2	12.3	16.6
1965-66	56.1	11.9	13.2	18.8
1969-70	56.5	11.7	13.9	17.9

Looking into the figures of the above two tables which are shown in the graph facing this page, it appears that the total national income of Uttar Pradesh at constant (1960-61) prices increased from 1799 in 1960-61 to 1996 in the year 1965-66 and in the same period the contribution of agriculture in the total national income was shared by 1.7% increase in industries, 0.9% increase in transport and communication and 2.2% increase in other services ($4.8 = 1.7 + 0.9 + 2.2$). But this gradual decrease in contribution of agriculture and progressive rise in the contribution of other sectors of industrial origin did not continue over the next quin-quennium ending 1969-70 when the share of agriculture stood increased at 56.5%. This recorded increase of 0.4% was shared by corresponding decline in shares of other sectors in which industries shared 0.2% decrease, commerce and transport recorded increase of 0.7% because of road expansion and development programmes of U.P. Government. The other services accordingly recorded a total decline of 0.9%.

1. Statistical Diary, 1971, p. 39. *ibid*

It may be stated here that out of total working population of Uttar Pradesh as many as 75.63% belong to agriculture, 10.18% to services and 14.29% to other sectors which include mining, quarrying, livestock, forestry, hunting, fishing, plantation orchards and allied activities, household industry, manufacturing other than household industry, construction, trade and commerce, transport, storage and communications. Since the quinquennial figures of occupational engagements are not available it can not be stated with any degree of confidence as to what the position was in 1956 but in 1961 the percentage of working population in agriculture was 75.19, in services it was 9.39% and in other sectors of economic activities it was 15.52%. Again details are not available for 1965-66 but in 1971 the percentage of workers in agriculture was 75.3% and all other sectors together shared the remaining 24.7% of the total working population. The classified statistical figures in this regard stand as under :

Table No. 11.4

TABLE SHOWING PERCENTAGE OF WORKING POPULATION INTO DIFFERENT OCCUPATIONS

Year	Percentage of total working population of U.P. engaged in		
	Agriculture	Services	Other productive sectors
1951	75.63	10.18	14.29
1961	75.19	9.39	15.52
1971	75.30	24.7	

Above figures of occupational engagement of the working population of Uttar Pradesh are in close conformity with the

contribution of agriculture to the total national income of the State. In occupational engagement the percentage of agricultural workers increased between 1951 to 1961 but declined slightly during the decade 1961-71. In earlier census years the percentage of workers in agricultural occupations was as under;

Table No. 11.5

TABLE SHOWING PERCENTAGE OF WORKERS IN AGRICULTURAL OCCUPATIONS IN DIFFERENT YEARS

Year	Percentage of total working population in Agriculture
1901	64.20
1911	69.82
1921	75.10
1931	73.18
1941	63.83 (Interpolated)
1951	75.63
1961	75.19
1971	75.30

An analysis of the above figures clearly reveals that the working population of Uttar Pradesh has not followed a definite trend. However the increase in the contribution of agriculture and other sectors of production in the total national income of Uttar Pradesh stood as follows during the period 1961-1970.

Table No. 11.6

TABLE SHOWING INDICES OF GROWTH OF NATIONAL INCOME AND CONTRIBUTION OF AGRICULTURE AND OTHER PRODUCTIVE SECTORS AT CONSTANT (1960-61) PRICES DURING THE PERIOD 1961-70¹
(1960-61 = 100)

Year	Total National Income	Contribution in National Total Income of	
		Agricultural Sectors	Non-Agricultural Sectors
1960-61	100	100	100
1961-62	102	98	103
1962-63	102	94	109
1963-64	102	90	119
1964-65	113	96	105
1965-66	111	92	112
1966-67	105	87	120
1967-68	115	93	111
1968-69	118	92	113
1969-70	126	93	111

It has been stated earlier that working population of Uttar Pradesh does not show any regular trend in its occupational engagement into agriculture and other productive sectors. Yet the above indices which are shown in a graph facing this page do follow a decreasing trend of agriculture in its contribution to total national income of Uttar Pradesh in which other productive sectors have contributed on an increasing basis during the last one decade. Since the contribution of agriculture

1. The indices for different years have been calculated on the basis of national income figures published in Statistical Diary, 1971. 36:4

to total national income has shown a progressive decline which is a happy sign in the context of present day economic planning and a trend towards ideal occupational engagement, it must not be assumed that productivity of agriculture has also declined. In fact annual compound rate of growth of agricultural sector has been increasing during the last one decade as shown by the figures in the following table;

Table No. 11.7

TABLE SHOWING ANNUAL COMPOUND RATE OF GROWTH OF STATE INCOME OVER (1960-61) CONSTANT PRICE¹

Sectors of Industrial Origin	Annual Compound Growth Rate upto		
	1965-66	1968-69	1969-70
1. Agriculture and allied sectors	0.4	1.0	1.7
2. Mining, Quarrying, Manufacturing and construction	5.3	3.8	4.1
3. Commerce, Transport & communication	3.7	4.0	4.0
4. Other services	4.7	3.4	3.4
5. All Productive Sectors	2.1	2.1	2.6

It can be safely generalised from the previous description that the majority of the working population of Uttar Pradesh is engaged in agriculture and there are remote chances that it will face any marked shift in occupational pattern in any near future, As such it would be quite appropriate to consider the contribution of agriculture in the economic growth in this State jointly with other sectors of production. It may also become desirable to examine the various other ways also

1. Source ; Statistical Diary, p. 40, Ibid.

in which growth contributions could be rendered and some of these ways may bear more directly on aggregative aspects of growth than on the structural and others may bear more directly on structural or international than upon aggregative.

In considering the contribution of agriculture to the economic growth of a region one must recognise the element of ambiguity because every sector is a part of independent economic sector of that region. Thus what a sector does, is not fully attributable to it but is contingent upon what is happening in the other sectors and also possibly in other regions. Hence if we deal with the net product contributed by agriculture deducting contribution from others and limiting the total to the product of the factors attached to that sector, the magnitude of the net product so measured still will depend upon the rest of the economy and it should be more correctly described as the result of the activities of the economy whose particular locus is the given sector than as a contribution of the given sector fully creditable to it as if it were outside the economy and offering something to the latter.

The contribution of agricultural sector of production to the economic growth of Uttar Pradesh can be measured either on an aggregate basis for entire agricultural sector or it can also be measured on the basis of product per worker. The product contribution of agriculture to the growth of region-wide product per capita or rather per worker is more meaningful unit for sectoral analysis.

Though it is more meaningful to measure product per

worker in agricultural or non-agricultural sectors but this measurement is based on the total aggregate product of the sector concerned. The calculation of aggregate product of a given sector is based on the growth of the product within the sector itself. An increase in net product of agriculture represents a rise in the product of the region which is the sum of rise in net product of several sectors. This product contribution can easily be examined as a contribution either to the growth of total net or gross product or to the growth of the product per capita.

III - Occupational Pattern of U.P. And Other States

The total national income of Uttar Pradesh is low because higher percentage of total working population is engaged in agricultural occupations. Agriculture in Uttar Pradesh is not a profession but rather a means of livelihood and hence it is not as profitable as other occupations are. It is with a view to improve the material prosperity of the masses that their Government of Uttar Pradesh has resorted to economic planning within the frame work of the Constitution of India along with other States. The results of planning have clearly demonstrated that along with decrease in the contribution of agriculture in total national income the contribution of other sectors has correspondingly increased in Uttar Pradesh. Thus it is logically presumed that as more and more surplus working population is released from agriculture and absorbed in other sectors the economic prosperity of the State as a whole and that of individuals will also improve.

The percentage of total working force engaged in agriculture is not uniform in all the States rather it differs and so does the total and national income per capita from State to State. The figures below provide details of total national income and contribution of agriculture in different States of India ;

Table No. 11.8

TABLE SHOWING TOTAL NATIONAL INCOME, PERCENTAGE OF WORKING FORCE IN AGRICULTURE AND OTHER SECTORS AND PERCENTAGE OF TOTAL WORKING FORCE TO TOTAL POPULATION IN DIFFERENT STATES OF INDIA 1961.1

State	Per capita National Income at current prices 1960-61 ₹	Percentage of workers to total population	Percentage of Total working force in	
			Agriculture	Other Sectors
1. Andhra Pradesh	279	51.87	68.48	31.52
2. Assam	311	43.28	64.64	35.36
3. Bihar	212	41.40	83.97	16.03
4. Maharashtra	409	47.91	66.55	33.45
5. Kerala	337	33.31	48.64	51.36
6. Madhya Pradesh	276	52.30	79.09	20.91
7. Madras (Tamil Nadu)	288	45.57	60.35	39.65
8. Mysore (Tamil-Nadu)	285	45.48	68.98	31.02
9. Orissa	249	43.66	70.33	29.67
10. Punjab	382	34.97	66.50	33.50
11. Rajasthan	318	47.55	73.30	26.70
12. West Bengal	319	33.16	50.80	49.20
13. India Average	306	42.98	69.74	30.26
Uttar Pradesh	246	39.12	75.63	24.37

1. Calculations based on figures published in U.P. Govt.'s Statistical Diary 1971 and also in population Census Totals of India, 1961.

An analysis of the figures in the above table clearly indicates that the highest percentage of working population to the total population was in Madhya Pradesh (52.30%) which was more than that of U.P. (39.12%) and that of all India average (42.98%) but the per capita national income of Madhya Pradesh was not highest in India, it was in Maharashtra (Rs 409) which had only 47.21% of the total population in the working force. Thus it is clear that it is not the volume of workers which adds to the economic growth rather the productivity of workers counts. As regards the percentage of working population in agriculture and other sectors the State of Bihar had 83.97% of the total working population in agriculture which was the highest closely followed by Madhya Pradesh (79.09%) U.P. (75.63%) and Orissa (70.33%). All other states of India had less than 70% of their total working population in agriculture. Here too the State of Bihar had not the highest per capita national income, rather it stood at the last rung of the ladder. Even this may not be correct to say that the larger the percentage of working population other than agriculture the lesser the contribution to national product because the State of Kerala had the highest percentage of working population in sectors other than agriculture among the States of India but its national income was not the highest rather it stood only third in order. Of course, the national per capita income of Kerala was more than all India average.

Whatever be the percentage of total population in the working force or for that matter percentage of working force in agriculture and other occupations the Government of the country

are now serious in making the population economically prosperous and the national income per capita in all the States of India is gradually increasing as is clear from the following figures:

Table No. 11.9

TABLE SHOWING PER CAPITA NATIONAL INCOME IN DIFFERENT STATES OF INDIA AT CURRENT PRICES.¹

States	Per Capita Income (Rs)		
	1960-61	1965-66	1967-68
1. Andhra Pradesh	279	393	514
2. Assam	311	418	558
3. Bihar	212	335	414
4. Maharashtra	409	531	676
5. Kerala	276	404	505
6. Madhya Pradesh	288	352	505
7. Madras (Tamil Nadu)	335	437	560
8. Mysore	285	393	464
9. Orissa	249	279	325
10. Punjab	382	610	828
11. Rajasthan	318	381	497
12. West Bengal	319	404	536
13. Gujarat	339	417	529
14. Hariyana	337	447	678
15. Uttar Pradesh	246	364	493
16. All India Average	306	421	551

Selecting the States from the view point of lowest per-

1. Source : Statistical Diary, 1971, p. 43, Ibid.

centage of working force engaged in agriculture the State of Kerala stands first and from the view point of highest income per capita we have the State of Maharashtra¹ it would be proper to compare the occupational pattern of U.P. with these States which is as under:

Table No. 11.10

TABLE SHOWING OCCUPATIONAL PATTERN OF WORKERS IN 1961²

Categories of worker	Percentage of Total workers			
	India	Kerala	Maharashtra	Uttar Pradesh
I	52.82	20.92	46.11	63.89
II	16.71	17.38	23.80	11.30
III	2.75	8.66	2.17	0.60
IV	6.39	8.68	4.39	6.24
V	4.22	9.40	6.88	2.78
VI	1.09	1.26	1.24	0.74
VII	4.05	5.72	4.52	3.68
VIII	1.59	2.71	2.36	1.38
IX	10.38	25.27	8.53	9.39

Figures in the above table indicate very clearly that a very high degree of variation exists in the occupational pattern of four economic regions compared herewith. It may not

1. Although the per capita national income of Hariyana was highest (678) in 1967-68 but this state being new other economic details are not available and that is why Maharashtra has been selected for comparison purposes.

2. Source : Population Census Totals, 1961.

be very wise to modify the occupational pattern of U.P. in accordance with that of India because the average per capita income is not highest for India. From the view point of highest income the occupational pattern of U.P. should be brought in line with that of Maharashtra. But looking from the modern view point that with a view to maximise the economic growth the contribution of agriculture in the national income should decrease and that of other sectors should gradually increase it may appear logical to reshape the economy of Uttar Pradesh on the model of Kerala. Before any decision is taken to chisel or fatten the occupational pattern of the population of Uttar Pradesh due consideration will have to be given to the degree of unemployment prevailing in different regions with which economy of Uttar Pradesh is being compared. The table below shows the percentage of total population in the working force of selected regions:

Table No. 11.11

TABLE SHOWING PERCENTAGE OF TOTAL POPULATION IN WORKING FORCE OF SELECTED REGIONS

Region	Percentage of Total Population in working force in 1961
Kerala	33.31
Maharashtra	47.91
Uttar Pradesh	39.12
All India	42.98

These figures disclose the fact that economy of Uttar Pradesh is somewhat nearer to that of India and superior to

that of Kerala where the percentage of non-workers is much higher. Of course, the economy of Maharashtra is definitely more sound than that of Uttar Pradesh because of higher degree of industrialisation of the former and if possible with a view to reduce unemployment and maximise the material welfare so far possible the shift in occupation may be planned in that direction in U.P.

IV - Suggested Occupational Pattern for Uttar Pradesh

In working out any plan for suggesting modification in the existing occupational pattern of Uttar Pradesh it is desirable that one must be very clear about shift in proportion of workers during previous decades and factors contributing to such changes. Then again it must also be examined whether the changes or the trend of change which have taken place are in conformity with the desired norms. The figures in the following table are indicative of changes in different occupations as these figures disclose the indices of percentage of workers in different categories of occupations since 1901.

Table No. 11.12

TABLE SHOWING INDICES OF PERCENTAGE OF WORKERS IN DIFFERENT CATEGORIES OF OCCUPATIONS (Base 1901 = 100)

Categories of Occupations	Indices in census years							
	1901	1911	1921	1931	1941	1951	1961	1972
Industrial category I	100	126	148	122	-	122	109	78
II	100	100	83	100	-	57	74	104
III	100	188	175	150	-	63	29	-
IV & V	100	100	86	58	-	60	70	-
VI	100	100	100	100	-	200	290	-
VII	100	100	100	120	-	170	72	-
VIII	100	100	50	25	-	125	108	-
IX	100	72	56	60	-	106	41	-
Total workers I-IX	100	115	119	105	-	109	91	-
Total population	100	99	96	102	117	130	152	182

Source : Calculations are based on figures published in Census of India 1961 Final Totals.

Indices shown in the above table are shown in the diagram facing this page to indicate trend of change in different occupations.

During the decade 1951-1961 the following shift in proportion of workers has taken place.¹

Among males categories I - Cultivation, VII - Trade and Commerce and IX - Other Services have registered a fall and

1. Census of U.P. 1961, Vol. II, p. 66.

categories II - Agricultural labour, III Plantation, mining, quarrying etc., VI Construction and VIII Transport, Storage and Communications have recorded a rise. The industrial categories IV and V - Manufacturing (including Household industries) have shown a very small rise.

Among females - Categories I, VIII and IX have recorded a fall and categories II and III a rise. The proportion of females in categories VI and VIII has been negligible throughout. In industrial categories IV and V their proportion has remained constant.

In the case of both sexes categories I, VII and IX have manifested a fall and categories II and III a rise during the decade.

For the progress of large and small scale industries the trend shown by categories IV and V requires special care. In the past in these categories there was a continuous fall from 1901 to 1951. Only during the decade 1951-61 the fall has been arrested to some extent. If both males and females are considered together, the proportion of workers in these categories remains almost the same. For industrial progress this proportion should not merely keep pace with population but should actually outstrip it.

The planning authorities of Uttar Pradesh have estimated that according to the census of 1961 about 75 percent of the total working population of U.P. was engaged in agriculture, 9.02 percent in factory establishment, industry and small scale

establishment, only 1.38 percent in transport and communication and the remaining 14.40 percent in other sectors of economic and productive activities. The planners of Uttar Pradesh suggest¹ that the State's working population if projected in relation to the country as a whole on the basis of position which obtained in 1961 the pattern on the eve of the Fourth Plan may be as under:

Table No. 11.13

TABLE SHOWING LIVELIHOOD PATTERN OF WORKERS IN 1971

Productive Sector	Percentage of working population
1. Agriculture	71.73
2. Factory establishment, small and large scale industries	9.19
3. Transport and Communications	1.92
4. Other productive sectors	17.16

This picture is not very much different and perhaps may not be able to make any material improvement in the economy of the State. However, the administrators of Uttar Pradesh are confident about the implementation of projects resulting in reduced unemployment. It is hoped that occupational pattern of the working force of Uttar Pradesh after successful implementation of the Fourth Five Year Plan would stand as under:

1. Government of U.P.- Fourth Five Year Plan - A Preliminary Memo, p. 28 (1968).

Table No. 11.14

TABLE SHOWING OCCUPATIONAL PATTERN OF WORKERS IN 1974

Productive Sector	Percentage of working population
1. Agriculture	67.1
2. Factory establishment, large and small scale industries	9.1
3. Transport and Communications	2.5
4. Other productive Sectors	21.3

The above pattern of occupation as shown in the diagram facing this page is one which the State of Uttar Pradesh expects to achieve at the end of its Fourth Five Year Plan in 1974. It will be nearer to the occupational pattern of Maharashtra in 1961. Thus the State of Uttar Pradesh would be fifteen years backward than Maharashtra in 1974 by which time the economy of Maharashtra would improve still further. The table below compares the occupational pattern of Maharashtra and Uttar Pradesh.

Table No. 11.15

TABLE SHOWING OCCUPATIONAL PATTERN OF WORKERS IN U.P. AND MAHARASTRA

Sectors of Production	Percentage of working population in	
	Maharashtra 1961	Uttar Pradesh 1974
1. Agriculture	69.91	67.1
2. Factory Establishment, small and large scale industries	8.53	9.1
3. Transport & Communications)	21.56	21.3
4. Other productive sectors)		

Thus while suggesting any modification in the occupational engagement of population no useful purpose would be served by copying the occupational pattern of India which is not very much different that of Uttar Pradesh. As the figures disclose in the following table a little alternation may be needed in agricultural sector alone;

Table No. 11.16

TABLE SHOWING COMPARATIVE OCCUPATIONAL PATTERN OF WORKERS IN INDIA, U.P. AND MAHARASHTRA IN 1961

Occupations	Percentage Distribution of working population 1961		
	India	Uttar Pradesh	Maharashtra
Primary Occupations	72.28	75.79	72.08
I	52.82	63.89	46.11
II	16.71	11.30	23.80
III	2.75	0.60	2.17
Secondary Occupations	11.70	9.76	12.51
IV	6.39	6.24	4.39
V	4.22	2.78	6.88
VI	1.09	0.74	1.24
Tertiary Occupations	16.02	14.45	15.41
VII	4.05	3.68	4.52
VIII	1.59	1.38	2.36
IX	10.38	9.39	8.53
Total	100.00	100.00	100.00

V - Contribution of Agriculture in the Economic Growth of U P.

It has been stated throughout this study that agriculture has always played an important role in the occupational engagement of population not only in Uttar Pradesh but also in other States of India as well. In future also even on the basis of alternation and the modifications suggested in the occupational pattern of U.P. irrespective of the fact whether reshaping takes places on the models of India or that of Maharashtra agriculture will continue to play a dominating role. As such any study dealing with changing occupational pattern of Uttar Pradesh will always remain incomplete unless some suitable reference is made to the contribution of agriculture in the economic growth of the region.

The agricultural sector can add to the economic growth of a region (i) by increasing the product within the sector itself which is called aggregative aspect of the growth; (ii) by providing shift from agriculture to other sectors which is called structural aspect of the growth. The industrialisation, urbanisation and mechanisation clearly indicate the importance of structural aspect of modern growth, and (iii) by International aspects of the growth which in case of Uttar Pradesh relate to other States of India. All these three aspects of growth are inter-related. The rise in per capita product essential to the aggregative view of economic growth in and of itself means a shift in consumption and savings which lead to shift in industrial and other structures of the economy. These structural shifts provide the surpluses for international movements bringing the benefits of international division of labour

which are helpful to greater structural shifts within inter communicative regions.

Employment as stated earlier is basically a function of investment and capital formation. The capital formation originating in the agricultural sector helps in financing the growth of other non-agricultural sectors. If we have data on savings and capital formation in agriculture and other sectors of economy of Uttar Pradesh there would be no problem in measuring the extent to which savings originating in agriculture contribute to the financing of capital formation elsewhere in the economy. But no such data is available for U.P. yet one can proceed on the assumption that in the initial phases of the growth the share of agriculture in total national product is large but the per capita income is distinctly lower than in non-agricultural sectors. Thus the share of domestic savings originating in agriculture is a function of the share of agriculture in total income, the lower the level of real income in agriculture than in other sectors and the relative prosperity to save of the agricultural population and of other groups in the economy.

Then let us also not forget that the birth rates of agricultural population are distinctly higher than those of non-agricultural and the death rates are more or less equal. Thus the rate of natural increase is very much higher for the agricultural than for the non-agricultural population and consequently for the agricultural than for the non-agricultural labour force. This definitely affects the labour supply, creates more complicated problems of the distribution of

population into different occupations. Then at the initial stages of growth as is the case of Uttar Pradesh at present, the share of agriculture in national dividend is around 75%, the rate of natural increase in population and labour force workout at 20‰ and 7‰ (with 40‰ birth rate and 27‰ death rate). Thus the rate of growth of the agricultural labour force owing to its rate of natural increase is almost three times that of non-agricultural areas. Under the assumption of a closed population with no international migration (e.g., U.P.) the internal migration would decline in due course of time and the total labour force would rise. Thus the increased labour force would lead to transfer of surplus manpower from agricultural to non-agricultural sectors and that would mean a sizeable capital contribution by agriculture in the economic growth of the region. Ordinarily each migrant to other productive sectors from agriculture is of working age and represents some investment in the past rearing and training to maturity. What is the magnitude of such investment in humanbeings is rather difficult to measure yet it is quite high in initial stages of development through which the State of Uttar Pradesh is passing at the moment.

CHAPTER XII

CONCLUSIONS

The population census of 1961 provides latest details about working population and its occupational engagement. The census of 1971 till now (March 1972) has provided only the general population numbers and ratio of workers and non-workers. Thus the conclusions of this study are based on the analysis of occupational details for 1961 census.

The census of 1961 divided entire population into two broad categories of workers and non-workers. Workers were further divided into nine industrial categories. Of the total population, 29 millions were workers who formed 39.1 per cent of the total population. The percentage of workers to total population was smaller in urban areas than in rural areas. The proportion of rural workers was very high in primary sector. In secondary sector the proportion of male workers in urban areas was higher than in rural areas. In urban areas the most important engagement of male population was in manufacturing industries other than household industry. For female population household industry has been important both in urban and in rural areas. Construction activity though more important in urban areas than in rural areas was not popular anywhere as a means of livelihood.

Household industry as principal work plays an important part in economy of the State. In total population household industry ranks after cultivation and agricultural labour but comes before manufacturing industry. Females outnumber males in household industry though opposite is true in other occupations. In urban areas non-agricultural occupations have more attraction. In rural areas cultivation claims the highest proportion of workers both males and females. The important household industries of this State employing more than one lakh workers are those of (i) live stock rearing, (ii) cotton textile and handloom, (iii) earthen wares and pottery, (iv) textile garment making, (v) foodgrain processing, and (vi) bamboo, cane, leaves and other products.

Households in rural areas are generally engaged in such household industries which are carried with cultivation. And the largest number of households are engaged in such household industries which are carried throughout the year. According to occupational classification of non-agricultural pursuits Division 7 - 8 of craftsmen, production process workers and labourers not elsewhere classified have the highest proportion of both male and female workers. Division 3 of sales workers comes next for males and Division 9 service, sports and Recreation workers for females, Mines and Quarry work is less important for males and Division 6 workers in transport and communication occupation are equally less important for females. Among males occupational group 8 - 9 labourers not elsewhere classified has the highest proportion followed by

group 30 of working proprietors, wholesale and retail trade. Group 70 of spinners, weavers, knitters dyers and related works is most popular among females followed by group 89 and group 82 of millers, bakers, brewmasters, and related food and beverage workers.

The proportion of workers in class I and II cities and towns is less than the State average for urban areas and in Class III and VI towns it is greater for both the sexes. The greatest proportion of workers is to be found in class VI towns. Participant ratio in smaller towns is generally greater than in bigger areas. Category IX is most important for males in all classes of towns. Manufacturing is next important in class I towns and trade and commerce in all other classes of towns. For females other services and household industries are two most important categories.

The proportion of male and female scheduled caste workers are 21.2 and 32.3 respectively. Their participation ratio is particularly higher for females. In agriculture it is 50% for males and 60 percent for females. In household industry the representation of scheduled caste males is smaller in rural areas but it is higher for both the sexes in urban areas. The percentage of scheduled caste among male workers of rural areas of categories V, VII and VIII is smaller than their over all percentage in trade and commerce but is much greater in categories VI and IX.

Looking into the detailed figures of occupational engagement from 1951 to 1971 it appears that very little

(if any) change has taken place in the economy. Agriculture still continues to play a dominating role. Even then overall contribution of agriculture has declined in the national income and that of other sectors has increased which is a welcome sign in the context of present economic planning. Although exact comparison of different occupational engagement of the population is not possible from census to census due to paucity of statistical details yet the following indices are indicative of a definite trend in this respect:

INDICES OF PERCENTAGE OF WORKERS IN DIFFERENT CATEGORIES OF OCCUPATIONS

(Base 1901 = 100)

Categories of Occupations	Indices in census years							
	1901	1911	1921	1931	1941	1951	1961	1971
I As cultivators	100	126	148	122	-	122	109	78
II As agricultural labourer	100	100	83	100	-	57	74	104
III In mining, quarrying etc	100	188	175	150	-	63	29	-
IV At household industry)	100	100	86	58	-	60	70	-
V In manufacturing other) than household industry)								
VI In construction	100	100	100	100	-	200	290	-
VII In Trade & Commerce	100	100	100	120	-	170	72	-
VIII In transport, storage & Communications	100	100	50	25	-	125	108	-
IX In other services	100	72	56	60	-	106	41	-
I-IX Total workers	100	115	119	105	-	109	91	-
Total Population	100	99	96	102	117	130	152	182

In view of analysis and projection of data throughout this study it can be stated that occupational classification should be simplified and the number of classes standardised. The census reports of Uttar Pradesh or that of India are not a fit document to provide detailed and precise occupational information. All that one should expect from census figures is that they shall give the means of drawing such a picture of occupational distribution of the people as shall be fairly true in its main lines. In some foreign countries this subject is totally excluded from the jurisdiction of census enumeration and information is collected through detailed industrial surveys. This may easily be done in Uttar Pradesh also through the Directorate of Economics and Statistics but perhaps the cost may be prohibitive. In this respect it may be worthwhile to conduct a large number of surveys relating to details of occupational structure of the population rather than make census classification very detailed and comprehensive. At the time of census an attempt should be made to collect information only on major heads and detailed information should be obtained through sample surveys.

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APPENDICES

APPENDIX No. 1

Districts of Uttar Pradesh 1971

- | | |
|-------------------|------------------|
| 1. Uttar Kashi | 28. Fatehpur |
| 2. Chamoli | 29. Allahabad |
| 3. Tehri Garhwal | 30. Jhansi |
| 4. Garhwal | 31. Jalaun |
| 5. Pithoragarh | 32. Hamirpur |
| 6. Almora | 33. Banda |
| 7. Naini Tal | 34. Kheri |
| 8. Bijnor | 35. Sitapur |
| 9. Moradabad | 36. Hardoi |
| 10. Budaun | 37. Unnao |
| 11. Rampur | 38. Lucknow |
| 12. Bareilly | 39. Rae Bareilly |
| 13. Pilibhit | 40. Bahraich |
| 14. Shahjahanpur | 41. Gonda |
| 15. Dehradun | 42. Barabanki |
| 16. Saharanpur | 43. Faizabad |
| 17. Muzaffarnagar | 44. Sultanpur |
| 18. Meerut | 45. Pratapgarh |
| 19. Bulandshahr | 46. Basti |
| 20. Aligarh | 47. Gorakhpur |
| 21. Mathura | 48. Deoria |
| 22. Agra | 49. Azamgarh |
| 23. Etah | 50. Jaunpur |
| 24. Mainpuri | 51. Ballia |
| 25. Farrukhabad | 52. Ghazipur |
| 26. Etawah | 53. Varanasi |
| 27. Kanpur | 54. Mirzapur |

APPENDIX No. 2

ADMINISTRATIVE DIVISIONS OF UTTAR PRADESH

I	UTTARAKHAND DIVISION	VII JHANSI DIVISION
	1. Uttar Kashi 2. Chamoli 3. Pithoragarh	30. Jhansi 31. Jalaun 32. Hamirpur 33. Banda
II	KUMAON DIVISION	VIII LUCKNOW DIVISION
	4. Almora 5. Tehri Garhwal 6. Naini Tal 7. Garhwal	34. Kheri 35. Sitapur 36. Hardoi 37. Unnao 38. Lucknow 39. Rai Bareilly
III	ROHILKHAND DIVISION	IX FAIZABAD DIVISION
	8. Bijnor 9. Moradabad 10. Budaun 11. Bareilly 12. Pilibhit 13. Sahjahanpur 14. Rampur	40. Bahraich 41. Gonda 42. Bara Banki 43. Faizabad 44. Sultanpur 45. Pratapgarh
IV	MEERUT DIVISION	X GORAKHPUR DIVISION
	15. Dehra Dun 16. Saharanpur 17. Muzaffarnagar 18. Meerut 19. Bulandshahr	46. Basti 47. Deoria 48. Gorakhpur 49. Azamgarh
V	AGRA DIVISION	XI VARANASI DIVISION
	20. Aligarh 21. Mathura 22. Agra 23. Etah 24. Mainpuri	50. Jaunpur 51. Ballia 52. Ghazipur 53. Varanasi 54. Mirzapur
VI	ALLAHABAD DIVISION	
	25. Kanpur 26. Fatehpur 27. Allahabad 28. Farrukhabad 29. Etawah	

APPENDIX No. 3

ECONOMIC REGIONS OF UTTAR PRADESH

I HILL REGION

1. Uttar Kashi
2. Chamoli
3. Tehri Garhwal
4. Garhwal
5. Pithoragarh
6. Almora
7. Nainital
8. Dehra Dun

II WESTERN REGION

9. Saharanpur
10. Muzaffarnagar
11. Meerut
12. Bijnor
13. Moradabad
14. Rampur
15. Bulandshahr
16. Aligarh
17. Mathura
18. Agra
19. Etah
20. Mainpuri
21. Farrukhabad
22. Etawah
23. Budaun
24. Shahjahanpur
25. Bareilly
26. Pilibhit

III CENTRAL REGION

27. Lucknow
28. Sitapur
29. Kheri
30. Hardoi
31. Kanpur
32. Unnao
33. Fatehpur
34. Rae Bareilly
35. Barabanki

IV EASTERN REGION

36. Allahabad
37. Mirzapur
38. Varanasi
39. Jaunpur
40. Pratapgarh
41. Sultanpur
42. Faizabad
43. Ghazipur
44. Ballia
45. Azamgarh
46. Deoria
47. Gorakhpur
48. Gonda
49. Basti
50. Bahraich

V BUNDEKHAND REGION

51. Jalaun
52. Jhansi
53. Hamirpur
54. Banda

APPENDIX NO.4

DISTRICT WISE DETAILS OF TOTAL POPULATION OF U.P. IN 1971.*

Sl. No.	Name of District	Total Population			Sex Ratio No. of females per thousand Males	Density per Sq. K.M.	Distribution of population into		Distribution of population into workers and non-workers			Distribution of working population into			Percentage of Agri. & Non-Agri. Workers to total working population					
		Nos	Males	Females			Rural	Urban	Workers	Non-workers	% of workers to total population	Culti-vators	Agri. labours	Others	Culti-vators		Agri. Labours		Others	
															1961	1971	1961	1971	1961	1971
1.	Uttar Kashi	149785	79004	70781	896	19	143765	6620	95399	54386	69.0	81332	883	13184	86.6	85.3	0.9	0.9	12.5	13.8
2.	Chamoli	297351	143453	153898	1073	33	285188	12193	172013	125339	57.8	149614	552	21847	88.9	87.0	0.2	0.3	10.9	12.7
3.	Tehri Garwal	398676	181269	217407	1198	90	388148	10528	205812	192864	51.6	188200	1060	16552	92.7	91.5	0.3	0.5	7.0	8.0
4.	Garhwal	539669	247650	292019	1180	99	504923	34746	243663	296006	45.2	197912	3812	41933	85.8	81.2	0.4	1.6	13.8	17.2
5.	Pithoragarh	308220	148552	159668	1072	43	296284	11956	128426	179794	41.7	102659	1582	24215	87.3	79.9	0.8	1.2	11.9	18.9
6.	Almora	741821	352593	389228	1103	106	703664	38157	294003	447818	39.6	246768	4538	42707	89.5	83.9	0.6	1.6	9.9	14.5
7.	Maini Tal	790120	438454	351666	802	116	614339	175781	271583	518537	34.4	123132	48998	99483	49.7	45.3	11.5	18.1	38.8	36.6
8.	Bijnor	1507407	812209	695698	856	307	1238130	269777	435988	1071919	28.9	192933	98391	144664	45.2	44.2	9.4	22.6	45.6	33.2
9.	Muradabad	2431587	1322231	1109356	839	408	1854652	576935	732311	1699276	30.1	450586	72494	209231	62.8	61.5	5.5	9.9	30.7	28.6
10.	Budaun	1644992	906872	738120	814	319	1491161	153831	524789	1120203	31.9	418857	44101	64831	79.1	79.2	5.1	8.4	15.8	12.4
11.	Rampur	901650	490387	411263	839	380	725220	176430	277994	623656	30.8	186715	25585	65694	66.1	67.2	7.3	9.2	26.6	23.6
12.	Bareilly	1779630	978049	801581	820	431	1383014	396616	546015	1223615	30.7	339775	86840	149400	63.2	62.2	5.1	10.4	31.7	27.4
13.	Pilibhit	751948	411229	340719	829	215	649324	102624	247073	504875	32.9	153420	32284	51369	64.5	66.1	8.0	13.1	27.5	20.8
14.	Shahjahanpur	1283323	712987	570336	801	281	1087379	195944	449877	833446	35.1	297815	56111	95951	71.2	66.2	6.3	12.5	22.5	21.3
15.	Dehradun	582592	329792	252800	772	189	314419	268173	205355	377237	35.2	57860	16610	130885	35.0	28.2	4.8	8.1	60.2	63.7
16.	Saharanpur	2059472	1129679	929793	823	373	1575792	483680	625119	1434353	30.4	222806	164074	237239	36.2	35.8	9.0	26.2	54.8	58.0
17.	Muzaffarnagar	1801428	982514	818914	833	424	1551467	249961	543033	1258395	30.1	229388	149886	163759	43.1	42.2	11.5	27.6	45.4	30.2
18.	Meerut	3363649	1834515	1529134	828	563	2546204	817445	934605	2429044	27.8	354636	140589	439380	40.3	37.9	4.9	15.1	54.8	47.0
19.	Bulandshahar	8074816	1112394	962422	865	424	1798168	276648	567828	1506988	27.4	306233	92087	169508	56.2	53.9	8.4	16.2	35.4	29.9
20.	Aligarh	2113747	1149469	964278	840	421	1740653	373094	595596	1518151	28.2	287130	110393	198072	49.5	48.2	29.9	18.5	40.6	33.3
21.	Mathura	1292982	709110	583872	824	340	1079967	213015	368786	924196	28.5	196849	53932	118005	55.5	53.4	7.4	14.6	37.1	32.0
22.	Agra	2319238	1266673	1052565	831	482	1470321	848917	640093	1679145	27.6	264275	65021	310797	44.5	41.3	5.0	10.2	50.5	48.5
23.	Ktah	1868251	852163	716088	840	352	1414241	154010	456024	1112227	29.1	316109	55547	84368	70.4	69.3	5.0	12.2	24.6	18.5
24.	Mainpuri	1442533	784256	658267	839	339	1320449	122074	401247	1041276	27.8	284660	45074	71513	72.0	70.9	3.8	11.2	24.2	17.9
25.	Farrukhabad	1558720	856724	701986	819	359	1388120	170540	455213	1103507	29.2	312545	39679	102989	71.1	68.7	5.8	8.7	23.1	22.6
26.	Ktawah	1445197	789970	655227	829	334	1303491	141706	393726	1051471	27.2	268341	51128	74197	73.0	68.2	4.6	13.0	22.4	18.8
27.	Kanpur	2992538	1550277	1442261	813	489	1712429	1280106	809101	2083434	30.4	240042	113425	455634	43.9	37.4	6.2	12.5	49.9	50.1
28.	Fatehpur	1876750	670696	606054	905	306	1204865	71885	441951	834799	34.6	259072	115831	67043	68.9	66.6	12.2	26.2	18.9	15.2
29.	Allahabad	2928644	1544430	1384214	902	405	2228002	54302	1013128	1924256	34.5	420082	274901	208205	57.2	42.5	17.5	27.1	25.3	30.4

APPENDIX No. 5

DISTRICTWISE DETAILS OF DECADAL VARIATIONS DURING
1961-1971

Sl. No.	Name of District	Percentage variation in population 1961-71	Difference in sex ratio 1961-71	Difference in ^{density per sq. km} impurity 1961-71	Difference in percentage of urban population to total population
1.	Uttarkashi	+ 22.06	- 68	+ 4	+ 1.8
2.	Chamoli	+ 17.47	- 35	+ 5	+ 4.0
3.	Tehri Garhwal	+ 14.13	- 4	+ 11	+ 0.4
4.	Garhwal	+ 11.87	+ 16	+ 10	+ 0.7
5.	Pithoragarh	+ 16.89	+ 18	+ 6	+ 3.9
6.	Almora	+ 17.20	+ 23	+ 16	+ 0.8
7.	Nainital	+ 37.57	+ 83	+ 31	+ 1.7
8.	Bijnor	+ 25.19	- 21	+ 62	+ 1.5
9.	Moradabad	+ 22.82	- 26	+ ⁷⁶ 62	+ 1.5
10.	Budaun	+ 16.53	- 23	+ 45	+ 1.0
11.	Rampur	+ 28.52	- 32	+ 84	- 1.2
12.	Bareilly	+ 20.30	- 14	+ 73	+ 0.2
13.	Pilibhit	+ 22.02	- 13	+ 39	- 0.1
14.	Sahjahanpur	+ 13.76	- 25	+ 34	+ 1.4
15.	Dehradun	+ 35.77	+ 6	+ 50	- 0.1
16.	Saharanpur	+ 27.47	- 2	+ 81	+ 0.5
17.	Muzaffarnagar	+ 24.49	- 8	+ 84	+ 0.7
18.	Meerut	+ 23.39	- 15	+ 107	+ 3.7
19.	Bulandshahr	+ 19.42	- 15	+ 69	+ 0.6
20.	Aligarh	+ 19.73	- 21	+ 70	+ 1.5
21.	Mathura	+ 20.66	- 14	+ 58	- 0.3
22.	Agra	+ 24.55	- 9	+ 95	+ 0.7

(Continued)

Appendix No. 5 (continued)

23. Etah	+ 20.66	- 25	+ 60	+ 0.2
24. Mainpuri	+ 22.17	- 21	+ 61	+ 1.1
25. Farrukhabad	+ 20.56	- 20	+ 61	- 0.2
26. Etawah	+ 22.22	- 18	+ 61	+ 0.7
27. Kanpur	+ 25.67	+ 2	+ 100	+ 1.8
28. Fatehpur	+ 19.78	- 10	+ 50	+ 1.6
29. Allahabad	+ 20.37	- 27	+ 69	+ 0.3
30. Jhansi	+ 20.16	- 25	+ 22	+ 0.8
31. Jalaun	+ 22.53	- 26	+ 33	+ 1.0
32. Hamirpur	+ 24.36	- 43	+ 27	+ 1.5
33. Banda	+ 24.24	- 27	+ 30	+ 1.6
34. Kheri	+ 17.75	- 30	--	+ 0.7
35. Sitapur	+ 17.27	- 22	+ 49	- 0.1
36. Hardoi	+ 17.57	- 24	+ 46	+ 0.6
37. Unnao	+ 20.75	0	+ 55	+ 0.2
38. Lucknow	+ 21.29	- 4	+ 115	+ 1.7
39. Rae Bareilly	+ 14.24	- 13	+ 41	+ 0.4
40. Bahraich	+ 15.23	- 48	--	+ 0.2
41. Gonda	+ 11.08	- 55	+ 31	+ 0.7
42. Barabanki	+ 15.69	- 40	+ 50	+ 0.7
43. Faizabad	+ 17.82	- 52	+ 66	+ 0.9
44. Sultanpur	+ 16.20	- 49	+ 52	+ 0.2
45. Pratapgarh	+ 13.28	- 37	+ 46	+ 0.3
46. Basti	+ 13.44	- 45	+ 49	+ 1.0
47. Gorakhpur	+ 19.43	- 54	+ 75	+ 0.6
48. Deoria	+ 13.42	- 42	+ 81	+ 0.5
49. Azamgarh	+ 18.88	- 31	+ 79	+ 0.4

(Continued)

Appendix No. 5 (continued)

50. Jaunpur	+ 15.96	- 41	+ 68	+ 0.7
51. Ballia	+ 18.72	- 51	+ 78	+ 0.8
52. Ghazipur	+ 17.19	- 36	+ 67	+ 1.1
53. Varanasi	+ 19.37	- 35	+ 90	+ 1.1
54. Mirzapur	+ 23.65	- 32	+ 26	+ 0.5
Total U.P.	+ 19.73	- 26	+ 50	+ 1.1

POPULATION OF CLASS I TOWNS OF UTTAR PRADESH DURING 1961-71

Sl. No.	Name of Town	Population		Percentage growth rate		Sex ratio	Difference in sex ratio 1961-71
		1961	1961	1951-61	1961-71		
1.	Kanpur	1273016	971062	+37.66	+31.10	762	+ 23
2.	Lucknow	825977	655673	+ 31.96	+26.01	809	+ 20
3.	Agra	637785	508680	+35.41	+25.38	839	+ 15
4.	Varanasi	582916	489864	+37.69	+19.00	826	+ 14
5.	Allahabad	502092	430730	+29.62	+19.33	785	+ 7
6.	Meerut	367147	283497	+21.79	+29.52	816	+ 14
7.	Bareilly	326127	272828	+31.11	+19.54	845	+ 4
8.	Moradabad	268122	191828	+18.52	+11.98	842	- 3
9.	Aligarh	254109	185020	+30.65	+37.29	830	+ 5
10.	Gorakhpur	230701	180255	+36.11	+27.99	798	+ 41
11.	Saharanpur	223517	185213	+24.78	+21.86	833	+ 12
12.	Jhansi	197523	169712	+33.25	+16.73	890	+ 50
13.	Dehra Dun	184753	156341	+ 8.41	+ 27.57	778	- 26
14.	Rampur	161802	135407	+ 0.84	+19.49	871	+ 21
15.	Shahjahanpur	144035	117702	+12.27	+22.39	864	- 4
16.	Mathura	139934	125258	+18.42	+12.14	833	+ 19
17.	Firozabad	133945	98611	+50.69	+35.83	835	+ 56
18.	Ghaziabad	128036	70438	+61.02	+81.77	796	- 9
19.	Muzaffarnagar	114859	87622	+36.46	+31.08	843	+ 55
20.	Farrukhabad	113895	94591	+17.75	+17.74	835	- 2
21.	Mirzapur	105920	100097	+15.68	+ 5.82	853	+ 40
22.	Faizabad	102794	83296	+ 7.03	+24.31	770	- 36

Figures relate to urban agglomerations. Calculations are based on Census of India Provisional Totals 1971 (U.P.) and Census Final Totals 1961.

APPENDIX No. 7

x

POPULATION DETAILS OF KAVAL¹ TOWNS OF U.P. DURING 1961 AND 1971

Sl. No.	Name of KAVAl towns	Population in		Percentage growth rate in		Differ. ence in sex Ratio in 1961-71	Sex Ratio in 1971
		1971	1961	1951-61	1961-71		
1.	Kanpur	1151975	881177	+38.45	+30.73	+ 23	769
2.	Lucknow	750512	95440	+33.89	+26.04	+ 25	830
3.	Agra	594858	462020	+38.52	+28.75	- 3	833
4.	Varanasi	560296	471258	+37.83	+18.89	+ 14	842
5.	Allahabad	491702	411955	+31.93	+19.36	+ 4	795

Source: Calculations are based on figures published in Census of India Provisional Totals 1971 and Census Final Totals of 1961.

1. Figures relate to Municipal Corporations only.

WORKERS AND NON-WORKERS OF UTTAR PRADESH DURING THE CENSUS YEARS
1951, 1961 and 1971

CLASSIFIED BY BROAD INDUSTRIAL CATEGORIES OF 1961 CENSUS

Industrial categories		1951	1961	1971
Total Population	P	63215742	73746401	83364779
	M	33098866	38634201	46922872
	F	30116876	35112200	41441907
Total workers	P	26396614	28850141	28416871
	M	19279496	22480360	24777359
	F	7117118	6369781	3629512
I. Cultivators	P	17945626	18428378	15910591
	M	12890474	14302062	14644676
	F	5055152	4126314	1265915
II. Agricultural workers	P	2017880	3261178	5497317
	M	1246919	2075588	4196029
	F	771061	1225590	1301288
III. In Mining ^{and} Quarrying, Livestock, ^{Forestry} Factory Fishery Orchard etc.	P	233104	171859)
	M	170586	147427)
	F	62618	24432)
IV. Household Industry	P	NOT AVAIL-	1801746)
	M	ABLE	1319180)
	F		482566)
V. Manufacturing other than H/H	P	1973426	800835) 7008963
	M	1594192	771059) 5936654
	F	379234	29776) 1072309
VI. Construction	P	162010	213919)
	M	140130	209914)
	F	21880	4005)
VII. Trade and Commerce	P	1069135	1062882)
	M	936652	996260)
	F	132483	66622)
VIII. Transport, storage communications.	P	309848	399265)
	M	295451	396530)
	F	14397	2735)
IX. Other services	P	2685485	2710081)
	M	2005092	2302340)
	F	680393	407741)
X. Non-workers	P	36819128	44896260	59947908
	M	13819370	16153841	22145513
	F	22999758	28742419	37802395

Source: Population census Totals pp. 402 and 408. 1961
Census of India Provisional Totals (U.P.) 1971.

DETAILS OF OCCUPATIONAL DIVISIONS AND SUB-DIVISIONS OF 1901

Class 1	Order 2	Sub-order 3	Occupation or means of livelihood 4
A Government	I.- Admi- nistration	1. Civil service of the State	1. The Viceroy, the Heads of ^{Loc} al govt., Administrators and agencies and their families 2. Officers of the govt. and their families. 3. Clerks Inspectors and their families 4. Constables Messengers workers and unspecified Total 1. Civil Service of the State.
		2. Service of local & Municipal Bodies	5. Inspecting and supervising officials 6. Clerical Establishments 7. Menials other than scavengers Total 2. Services of local and Municipal Bodies
		3. Village service	8. Headmen, not shown as agriculturists 9. Accountants - do - 10. Watchmen and other village servants Total 3. Village service Total Administration
	II.-Defence	4. Army	11. Military Officers 12. Non-commissioned officers and Private 13. Followers 14. Military Administrative establishment 15. Military Police etc. 16. Military service unspecified Total 4. Army.
		5. Navy & Machine	17. Naval Officers 18. Naval Engineers, Warrant Officers and seaman 19. Naval Administrative Staff Total 5. Navy & Machine Total II. Defence
		6. Civil of Native & Officers Foreign State	20. Chiefs and Officers 21. Clerical Establishments 22. Menials and unspecified Total 6. Civil Officers
	III. Service	7. Military	23. Officers 24. Private etc. Total 7. Military Total III. Service of Natives & Foreign States.
			Total A. Government.

Appendix No. 9 (continued)

B. Pasture & Agri- culture	IV. Provi- sion & care of animals	8. Stock Breeding & dealing	<div>25. Horse, male & ass breeders, dealers & attendants</div> <div>26. Cattle breeders & dealers and Commission farm establishment</div> <div>27. Herdsmen</div> <div>28. Elephant catchers</div> <div>29. Camel breeders, dealers and attendants</div> <div>30. Sheep & goat breeders & dealers</div> <div>31. Shepherds and goat herds</div> <div>32. Pig breeders and dealers and swineherds</div> <div>Total 8. Stock Breeding & dealing</div>
	9. Training and care of animals		<div>33. Veterinary surgeons, farriers, and C.</div> <div>34. Horse and elephants trainers & c.</div> <div>35. Vermin and animal catchers</div> <div>Total 9. Training & care of animals</div> <div>Total IV. Provision & Care of animals.</div>
V Agriculture	10. Land holders & Tenants		<div>36. Zamindars</div> <div>37(a) Tenants with some rights of occupancy</div> <div>37(b) Tenants with no rights of occupancy</div> <div>37(c) Sub-Tenants</div> <div>Total 10. Landholders & Tenants</div>
	11. Agri- cultural labourers		<div>38. Farm Servant</div> <div>39. Field labourers</div> <div>40. Taungya or Jhum Cultivators</div> <div>Total 11. Agricultural labourers</div>
	12. Grow- ers of special products		<div>41. Cinchona plantations, owners, managers & superior staff</div> <div>42. Cinchona plantations labourers and others subordinates</div> <div>43. Coffee plantations, owners, managers & superior staff.</div> <div>44. Coffee Plantations, labourers & other subordinates</div> <div>45. Indigo factories, owners, managers and superior staff</div> <div>46. Indigo factories, Labourers & other subordinates</div> <div>47. Tea Plantations: owners, managers and superior staff.</div> <div>48. Tea Plantations: labourers and other subordinates</div> <div>49. Betelvine and areca nut growers</div> <div>50. Cardamon and pepper growers</div> <div>51. Coconut growers</div>

52. Fruits & vegetable growers
 53. Miscellaneous
 Total 12. Growers of special Products
54. Directors of agr. & their staff
 55. Agricultural chemists & experts
 56. Agents and managers of landed estates (not planters)
 57. Clerks, bailiffs, petty rent collectors etc.
 58. Forest Officers
 59. Forest rangers, guards, peons
 Total 13. Agricultural Training & Supervision & Forest
 Total V. Agriculture
 Total B. Pasture & Agriculture

C Personal Services

VI Personal household & sanitary services

14. Personal & domestic services

60. Barbers
 61. Cooks
 62. Doorkeepers & c.
 63. Grooms, coachmen, dog, boys & c.
 64. Indoor servants
 65. Washermen
 66. Water Carriers
 67. Shampooers
 68. Miscellaneous and unspecified
 Total 14. Personal & Domestic services.

15. Non-domestic entertainment

69. Hotel, lodging house bar or refreshment room keepers
 70. Rest-house, serai, bath-house bar or refreshment room keepers
 71. Club secretaries, managers stewards & c.
 Total 15. Non-domestic entertainment

16. Sanitation

72. Sanitary Officers of Govt. & establishment.
 73. Sanitary Inspectors, Local & Municipal
 74. Sweepers and Scavengers
 75. Dust & Sweeping contractors
 Total 16. Sanitation
 Total VI Personal household & sanitary services
 Total C - Personal Services

D. Preparation & supply of material substances

VII Food drink & Stimulants

17. Provision of animal food

76. Butchers and slaughterers
 77. Cheese makers and sellers
 78. Cow & Buffalo keepers, milk & butter sellers
 79. Fishermen & fish curers
 80. Fish dealers
 81. Fowl & egg dealers
 82. Ghee preparers and sellers

Appendix No. 9 (continued)

1	2	3	4
			83. Collectors of edible birds nests
			84. Miscellaneous
			Total 17. Provision of animal food.
18. Provi-			85. Biscuit factories, owners, managers and superior staff
sion of			86. Biscuit factories: operatives and other subordinates.
vegetable			87. Flour mills: owners, managers and supervisor staff
food			88. Flour mills: operatives & other subordinates
			89. Oil Mills: owners, managers and superior staff.
			90. Oil mills: operatives and other subordinates.
			91. Rice mills: owners, managers and superior staff.
			92. Rice mills: operatives & other subordinates.
			93. Sugar factories: owners, managers and superior staff.
			94. Sugar factories: operatives and other subordinates.
			95. Bakers
			96. Flour grinders
			97. Grain & Pulse dealers
			98. Grain parchers
			99. Makers of sugar, molassos and gur by hand
			100. Oil pressers
			101. Oil sellers
			102. Rice pounders and huskers
			103. Sweetmeat makers
			104. Sweetmeat sellers
			105. Vegetables and fruit sellers
			106. Miscellaneous
			Total 18. Provision of Vegetable Food.
19. Provi-			107. Aerated water factories: owners, managers & superior staff
sion of			108. Aerated water factories: workmen and other subordinates
drink,			109. Breweries, owners, managers and superior staff
condiments			110. Breweries: workmen & other subordinates.
& stimu-			111. Distilleries: owners, managers and superior staff
lants			112. Distilleries: operatives and other subordinates
			113. Opium factories: managers, owners and superior staff

Appendix No. 9 (continued)

- 114. Opium factories: workmen and other subordinates
- 115. Ice factories: owners, managers and subordinate staff
- 116. Ice factories: workmen and other subordinates
- 117. Salt stores: owners, manager and superior staff
- 118. Salt storage: workmen and other subordinates
- 119. Tobacco Factories: owner, manager and superior staff
- 120. Tobacco factories: workmen and subordinates
- 121. Water works: managers and superior staff
- 122. Water works: workmen and other subordinates
- 123. Cardamam, betel, leaf & nut sellers
- 124. Grocers and general condiment dealers.
- 125. Opium, bhang, ganja & c. preparers
- 126. Opium, bhang, ganja & c sellers
- 127. Salt makers
- 128. Salt sellers
- 129. Tobacco & snuff manufacturers
- 130. Tobacco & snuff sellers
- 131. Toddy drawers
- 132. Toddy sellers
- 133. Wine and spirit distillers
- 134. Wine and spirit sellers
- 135. Miscellaneous

Total 19. Provision of drink, condiment and stimulants

Total VII Food, drink & stimulants

VIII Light firing & Forage

20. Light- ing

- 136. Gas works: owners, managers & superior staff
- 137. Gas works: operatives & other subordinates
- 138. Match factories: owners, managers and superior staff.
- 139. Match factories: operatives and other subordinates
- 140. Petroleum refineries: owners, managers & superior staff
- 141. Petroleum refineries: workmen & other subordinates
- 142. Petroleum dealers
- 143. Processes of vegetable oil for lighting

Appendix No. 9 (continued)

4

		144. Sellers of vegetable oil for lighting
		145. Match, candle, torch lamp, lantern, makers & sellers & c. Total 20. Lighting.
	21. Fuel and forage	146. Collieries, owners, managers & superior staff
		147. Collieries, miners and other other subordinates
		148. Coal, dealers, brokers, company managers
		149. Hay grass and fodder sellers
		150. Firewood, charcoal, & cowdung sellers Total 21. Fuel and forage Total VIII. Light, firing and forage
IX Build- ing	22. Build- ing materials	151. Brick & Tile Factories: owners, managers & superior staff
		152. Brick & Tile factories: operatives and other subordinates
		153. Stone & marble works: managers and superior staff
		154. Stone & marble works: labourers and other subordinates
		155. Brick and tile makers
		156. Brick and tile sellers
		157. Lime, Chunam and Shell burners
		158. Lime, Chunam & Shell sellers
		159. Tatch dealers
		160. Cement works: owners, manager and superior staff
		161. Cement works: operatives and subordinates Total 22. Building materials
	23. Arti- ficers in building	162. Building contractors
		163. Masons and builders
		164. Painters, plumbers, and glazier
		165. Tatchers
		166. Stone and marble workers Total 23. Artificers in building Total IX. Buildings
X Vehi- cles & Vessels	24. Rail- way & Tramway Plant	167. Railway & Tramway factories: owners, managers and superior staff
		168. Railway & Trambay factories: operatives & subordinates Total 24: Railway & Tramway plant

Appendix No. 9 (continued)

1	2		3		4
			25. Carts	169. Coach building factories; owners	
			carriages	managers & superior staff	
			& c.	170. Coach building factories; opera-	
				tors and other subordinates	
				171. Cart and carriage makers	
				172. Cart & carriage sellers	
				173. Painters and carriage & c	
				174. Palki, dandi, ricksaws, makers	
				and sellers	
				Total 25. Carts carriages & c.	
			26. Ships	175. Ship, wrights, boat builders & c.	
			& Boats	176. Sail makers	
				177. Ship chandlers and marine store	
				dealers	
				178. Ship and boat painters	
				Total 26. Ships & Boats	
				Total X. Vehicles & Vessels	
			XI supp-	27. Paper	
			plementary	179. Paper mills; owners, managers	
			require-	and superior staff	
			ments	180. Paper mills, operatives & other	
				subordinates	
				181. Paper makers and sellers & palm	
				leaf binders	
				182. Stationers	
				Total 27. Paper	
				28. Books	
			& Prints	183. Printing Presses; Owners, managers	
				and superior staff	
				184. Printing Presses; workmen &	
				other subordinates	
				185. Hand Press Proprietors, litho-	
				graphers and printers	
				186. Book binders	
				187. Book sellers, book agents and	
				publishers	
				188. Newspaper proprietors, managers	
				& sellers.	
				189. Print & Picture dealers	
				Total 28. Books & Prints	
				29. Watch-	
			es, clocks	190. Watch and clock makers	
			& Scien-	191. Watch & clock sellers & opticians	
			tific ins-	192. Photographic apparatus dealers	
			truments	193. Other scientific instrument,	
				makers, menders and sellers	
				Total 29. Watches, clocks and	
				scientific instruments	
				30. Carv-	
			ing and	194. Wood and ebony carvers	
			engraving	195. Ivory carvers	
				196. Cotton stamp makers & sellers	
				197. Turners and lacquerers	

Appendix No. 9 (continued)

1	2	3	4
			198. Die sinkers and seal & c. engravers
			199. Type founders
			200. Mica flint & tala workers and sellers
			201. Mosaic & alabaster workers and sellers
			Total 30. Carving & Engraving
31. Toys & curio- sities	202. Toy, Kite & Cage makers & sellers		
	203. Hukka, Stem makers & sellers		
	204. Papier-mache workers & sellers		
	205. Curiosity dealers		
	Total 31. Toys & Curiosities		
32. Music & Musical Instruments	206. Music & Musical instrument makers		
	207. Music & Musical instrument sellers		
	Total: 32. Music & Musical Instruments		
33. Bangles Necklaces Beads & Sacred Threads	208. Makers of bangles other than glass		
	209. Sellers of bangles other than glass		
	210. Makers of glass bangles		
	211. Sellers of glass bangles		
	212. Imitation & pewter jewellery makers		
	213. Sellers of Imitation & pewter jewellery		
	214. Rosary, bead & neckalace makers		
	215. Rosary, bead & neckalace sellers.		
	216. Flower garland makers & sellers		
	217. Makers & sellers of spangles, lingans & sacred threads		
	Total 33. Bangles, Necklace beads & c.		
34. Fur- niture	218. Furniture factories: owners managers & superior staff		
	219. Furniture factories: operatives and other subordinates		
	220. Furniture makers, hand industry		
	221. Furniture sellers		
	Total 34. Furniture		
35. Har- ness	222. Harness (not leather) makers and sellers		
	223. Saddle, cloth makers, embroiderers and sellers		
	224. Whip, goad & walking stick & c makers		
	Total 35. Harness		

Appendix No. 9 (continued)

1	2	3	4
		36. Tools & machinery	225. Machinery & Engineering workshop owners, managers and superior staff 226. Machinery & engineering workshops operatives & other subordinates 227. Knife and tool makers 228. Knife and tool sellers 229. Knife and tool grinders 230. Plough & agricultural implement makers 231. Looms & loom comb makers and sellers 232. Mechanics other than railway mechanics 233. Machinery dealers & c. 234. Sugar press makers Total 36. Tools & Machinery
		37. Arms & Ammunition	235. Arms & Ammunition factories: superior staff 236. Arms & Ammunition factories: operatives & subordinates 237. Arsenals, superior staff 238. Arsenals, operatives & other subordinates 239. Gunpowder factories; Manager & superior staff 240. Gunpowder factories; Operatives and other subordinates 241. Gun carriage factories; Manager and superior staff 242. Gun carriage factories; workmen and other subordinates 243. Gun makers, menders & sellers 244. Ammunition, gunpowder & firework makers. 245. Ammunition, gunpowder & firework sellers 246. Makers of swords, spears and other weapons 247. Seller of swords, spears and other weapons. Total 37 Arms & Ammunition Total XI Supplementary requirements
XII Textile Fabrics & Dress		38. Wool and Fur	248. Carpet weavers 249. Shawl weavers 250. Felt and pashm workers 251. Persons occupied with blankets, woolen cloth & yarn, fur feathers, and natural wool 252. Wool carders 253. Wool dyers 254. Dealers in woolen goods, fur & feathers Total 38 Wool & Fur.

Appendix No. 9 (continued)

- | | | |
|--|--|--|
| <div style="text-align: center;">1</div> <div style="text-align: center;">2</div> <div style="text-align: center;">3</div> | <div style="text-align: center;">4</div> | <p>39. Silk</p> <p>255. Silk features, owners, managers and superior staff</p> <p>256. Silk features operatives & other subordinates</p> <p>257. Silk mills, owners, managers and superior staff</p> <p>258. Silk mills, operatives & other subordinates</p> <p>259. Silkworm rearers & cocoon gatherers</p> <p>260. Silk carders, spinners & weavers, makers of silk braid and thread</p> <p>261. Sellers of raw silk, silk cloth, braid & thread</p> <p>262. Silk dyers</p> <p style="padding-left: 40px;">Total 39. Silk</p> <p>40. Cotton</p> <p>263. Cotton ginning, cleaning & pressing mills, owners, managers and superior staff</p> <p>264. Cotton ginning, cleaning & pressing mills, operatives & other subordinates</p> <p>265. Thread glazing & polishing factories owners, managers & superior staff.</p> <p>266. Thread, glazing and polishing factories; operatives and other subordinates.</p> <p>267. Cotton spinning, weaving and other mills: owners, managers & superior staff.</p> <p>268. Cotton spinning, weaving & other mills: operatives and other subordinates.</p> <p>269. Tent factories: owners, managers & superior staff.</p> <p>270. Tent factories, operatives and other subordinates</p> <p>271. Cotton cleaners, pressors & ginnerers</p> <p>272. Cotton weavers, hand industry</p> <p>273. Cotton carpet and rug makers</p> <p>274. Cotton carpet and rug sellers</p> <p>275. Cotton spinners.</p> <p>276. Cotton yarn and thread sellers</p> <p>277. Calenderers, fullers & printers</p> <p>278. Cotton dyers</p> <p>279. Tape makers</p> <p>280. Tape sellers</p> <p>281. Tent makers</p> <p>282. Tent sellers</p> <p style="padding-left: 40px;">Total 40. Cotton</p> <p>41. Jute, Hemp, Flax, Coir & c.</p> <p>283. Jute presses, owners, managers & superior staff</p> <p>284. Jute presses, operatives and other subordinates.</p> |
|--|--|--|

Appendix No. 9 (continued)

1

2

3

4

- 285. Jute Mills; owners, managers & superior staff
- 286. Jute Mills; operatives and other subordinates
- 287. Rope works, owners, managers, & superior staff.
- 288. Rope works; operatives and other subordinates.
- 289. Dealers in raw fibres
- 290. Rope sacking & net makers.
- 291. Rope sacking & net sellers
- 292. Fibre matting & bag makers.
- 293. Fibre matting & bag sellers.
- Total 41. Jute, Hemp, Flax, Coir & C.

42. Dress

- 294. Clothing agencies, managers & superior staff
- 295. Clothing agencies, operatives & other subordinates
- 296. Hosiery factories; owners, manager and superior staff
- 297. Hosiery factories; operatives & other subordinates.
- 298. Umbrella factories; owners, managers and superior staff
- 299. Umbrella factories; Operatives and other subordinates
- 300. Umbrella sellers
- 301. Embroiderers, lace & muslin makers
- 302. Hat, cap & turban makers, binders and sellers.
- 303. Hoseirs and haber dashers.
- 304. Piece good dealers.
- 305. Makers of shoes (not leather)
- 306. Tailors, milliners, dressmakers and darners.
- Total 42. Dress
- Total XII. Textile, Fabrics & Dress.

XIII Metals & Precious stones

43. Gold, silver, & precious stones

- 307. Mints, managers & superior staff.
- 308. Mints, operatives and other subordinates
- 309. Gold mines, owners, managers & superior staff.
- 310. Goldmines, operatives & other subordinates
- 311. Jade miners
- 312. Goldsmith's dust washers
- 313. Enamellers
- 314. Electro-platers
- 315. Dealers in plate and plate ware
- 316. Gold and silver wire drawers and braid makers

Appendix No. 9 (continued)

1

2

3

		317. Workers in gold, silver & precious stones.
		318. Dealers in gold, silver, & precious stones.
		319. Pearl divers
		Total 43. Gold, silver and precious stones.
44. Brass, copper & Bellmetal	320. Brass foundaries; owners, managers and superior staff	
	321. Brass foundaries; Operatives & other subordinates	
	322. Brass, copper & bell metal workers	
	323. Brass copper & bell metal sellers	
	Total 44. Brass, copper & Bell metal.	
45. Tin Zinc & Quicksilver & lead	324. Workers in Tin Zinc & Quicksilver and lead	
	325. Seller in tin, zinc and lead goods	
	Total 45. Tin, Zinc and quicksilver & lead.	
46. Iron & Steel	326. Iron foundaries; owners, managers and superior staff	
	327. Iron foundaries, operatives & other subordinates	
	328. Worker in Iron & Hardware	
	329. Sellers of Iron & Hardware	
	Total 46. Iron and Steel	
	Total XIII. Metals and Precious stones	
XIV Glass Earthen & Stone ware	47. Glass & China ware	330. Glass factories; Owners, managers and superior staff
		331. Glass Factories; operatives & other subordinates
		332. Makers of glass & china ware other than bangles
		333. Sellers of glass & China ware other than bangles.
		Total 47. Glass & China ware.
	48. Earthen & Stone ware	334. Pottery works; owners, managers & superior staff
		335. Pottery works; Operatives & other subordinates
		336. Potters & pot & pipe bowl makers
		337. Sellers of pottery ware
		338. Grind stone and mill stone makers and menders
		339. Grind stone and mill stone sellers
		Total 48. Earthen & stone ware
		Total XIV. Glass, Earthen & stone ware.

Appendix No. 9 (continued)

1	2	3	4
	XV Wood, cane & leaves & c.	49. Wood & Bamboo	340. Carpentry: Owners, managers & superior staff 341. Carpentry: Operatives and other subordinates. 342. Saw mills, owners, managers & superior staff 343. Saw mills: workmen and other subordinates. 344. Carpenters 345. Dealers in timber & bamboos 346. Wood cutters and sawgers Total 48. Wood & Bamboos.
		50. Cane work, matting & leaves & c.	347. Baskets, mats, fans, screens, brooms & c. makers & sellers 348. Comb & tooth stick makers and sellers. 349. Leaf-plate, makers and sellers. Total 50. Cane work, matting & Leaves & c. Total XV. Wood cane & Leaves & c.
	XVI Drugs Gums, Dyes & c.	51. Gums, wax, Resin & similar forest produce	350. Cutch factories: Owners, managers and superior staff 351. Cutch factories: Operatives, & other subordinates 352. Lac Factories: Owners, managers & superior staff 353. Lac Factories: operatives and other subordinates 354. Camphor gum & India-rubber collectors 355. Camphor gum & India-rubber sellers 356. Catechu prepares 357. Catechu sellers 358. Lac Collectors 359. Lac Sellers 360. Wax, honey & forest produce collectors & sellers Total 51. Gums, wax, Resin & similar forest produce
		52. Drugs Dyes, Pigments & c.	361. Chemical Factories: owners, managers and superior staff 362. Chemical Factories: Operatives and other subordinates. 363. Soap Factories: Owners, managers and superior staff. 364. Soap Factories: Operatives & other subordinates 365. Saltpetre refiners 366. Saltpetre sellers 367. Dyeworks: Owners, managers and superior staff.

Appendix No. 9 (continued)

1	2	3	4
			368. Dye Works; Operatives and other subordinates.
			369. Chemists and Druggists
			370. Borax refiners
			371. Borax sellers.
			372. Soap sellers
			373. Antimony prepares and sellers
			374. Maddar, saffron, & logwood workers and dealers.
			375. Ink makers and sellers
			376. Perfume, incense and sandal wood preparers
			377. Perfume, incense and sandalwood sellers
			378. Persons occupied with miscellaneous drugs
			379. Persons occupied with miscellaneous drugs
			Total 52. Drugs, Dyes, Pigments & c.
			Total XVI- Drugs, Gums, Dyes & c.
XVII	53. Leather	380. Bone mills, owners, managers, & superior staff	
Leather	ther	381. Bone mills, operatives & other subordinates	
& c.	Horn & Bones	382. Brush factories: owners, managers and superior staff	
		383. Brush factories: operatives & other subordinates	
		384. Tanneries & leather factories: owners, managers & superior staff.	
		385. Tanneries & leather factories: operatives and subordinates	
		386. Leather Dyers	
		387. Shoo, boot & sandal makers	
		388. Tanners & curries.	
		389. Sellers of manufactured leather goods.	
		390. Sellers of hides, horns, bristles and bones.	
		391. Waterbag, well bag, bucket and ghipot makers	
		Total 53. Leather Horn & Bones	
		Total XVII- Leather & c.	
		Total D. Preparation and supply of Material substances	
E Commerce	XVIII	54. Money	392. Bankers, moneylenders & c.
Transport	Commerce	&	393. Insurance Agents & underwriters
& storage		securities	394. Money changers & testers
			395. Bank, clerk, cashiers, bill collectors, accountants
			Total 54. Money & Securities

Appendix No. 9 (continued)

1	2	3	4
	55. General Merchandise	396. General Merchants	
		397. Merchants' managers, accountants, clerks assistance	
		Total 55. General Merchandise	
	56. Dealing unspecified	398. Shopkeepers other than unspecified.	
		399. Shopkeepers, clerks, salesmen & c.	
		400. Shopkeepers & Moneylenders' servants.	
		401. Peddlars, Hawkers & c.	
		Total 56. Dealing Unspecified	
	57. Middlemen, Brokers & Agents	402. Brokers and agents	
		403. Auctioneers, auditors, actuaries, notarian public	
		404. Farmers of pounds, tolls, ferries, markets & c.	
		405. Farmers of liquor opium & c.	
		406. Contractors for labour, emigration agents & c.	
		407. Contractors otherwise unspecified	
		408. Clerks employed by middlemen	
		Total 57. Middlemen Brokers & Agents.	
		Total XVIII- Commerce	
XIX	58. Railway Transport & storage	409. Agents, directors, managers & their assistance	
		410. Other administrative officials	
		411. Clerical staff on railway.	
		412. Stationmasters & Assistants	
		Inspectors and Overseers	
		413. Guards Drivers Firemen	
		414. Pointsmen shunters porters signallors	
		415. Railway service unspecified	
		Total 58. Railway	
	59. Road	416. Tramway Mail carriage: Managers contractors	
		417. Cartowners Drivers Carting Agents	
		418. Livery stable keepers	
		419. Drivers stable boys (not private servants)	
		420. Palki Bearers & owners	
		421. Pack Bullock owners Drivers	
		422. Pack camel elephant male owners and drivers	
		Total 59. Road.	
	60. Water	423. Shipowners and Agents	
		424. Shipping clerks super cargoes and steveders	
		425. Boat and Bonge owners.	

Appendix No. 9 (continued)

F Profession

XX
Learned
&
Artistic
Profession

63. Religion

64. Education

426. Dockyards owners, managers and superior staff
 427. Dockyards; owners and other subordinates
 428. Ship's Officers, engineers, Mariners and firemen
 429. Board and Bongemen
 430. Pilots
 431. Lock keepers & canal service
 432. Harbour works harbour service and drivers
 Total 60. Water

61. Massengers
 433. Post Office- Officers & superior staff
 434. Post Office- Clerks messengers runners and other subordinates
 435. Telegraph Officers and Superior Staff
 436. Telegraph- Clerks signallers, Massengers and other subordinates
 437. Telephone- Managers and Superior staff
 438. Telephone - clerks operators and other subordinate staff
 Total 61. Massengers.

62. Storage & Weighing

439. Warehouse owners, managers and superior staff
 440. Warehouse workmen and other superior staff
 441. Porters
 442. Weighmen and measurers
 443. Watchmen employed at stores
 Total 62. Storage & weighing
 Total XIX Transport and Storage

444. Priests ministers etc.
 445. Catechists readers, church and mission service
 446. Religious mendicants inmates of monestories and convents
 447. Church, Temple, Burials or Burning ground service
 448. Circumcissors
 449. Astrologers diviners Horoscope makers
 450. Almanack makers and sellers
 Total 63. Religion

451. Administrative & Inspecting staff
 452. Principals, Professors & Teachers
 453. Clerks and servants connected with education
 Total 64. Education.

Appendix No. 9 (continued)

65. Literature	<div>3</div> <div>4</div> 454. Authors Editors Journalists 455. Reporters, shorthandwriters 456. Writers unspecified and private clerks 457. Public services and copists 458. Service in libraries and literary Institutions. Total 65. Literature
66. Law	459. Barristors, Advocates, Pleaders 460. Solicitors Attorneys 461. Law Agents and Mukhtars 462. Kazis 463. Articled clerks and other lawyer clerks 464. Petition writers touts 465. Stamp Venders Total 66. Law.
67. Medicine	466. Administrative and inspecting staff (when not returned under general head) 467. Practitioners with diploma, licence or certificate 468. Practitioners without diploma 469. Dentists 470. Oculists 471. Vaccinators 472. Midwives 473. Compounders, matrons, nurses & hospital asylum & dispensary service Total 67. Medicine
68. Engineering & Survey	474. Administrative and inspecting staff 475. Civil Engineer & Architects 476. Topographical, archaeological and revenue surveyer 477. Draftsmen and operatives in survey offices, overseers. 478. Clerks & c. in offices of the above. Total 68. Engineering & Survey
69. Natural Science	479. Astronomers & meteorologists and establishments 480. Botanists, naturalists & Officers of scientific institutions 481. Metallurgists 482. Persons occupied with other branches of Science. Total 69. Natural Science.

Appendix No. 9 (continued)

1	2	3	4
		70. Pictorial Art & Sculpture	483. Painters - superintendents of school of art & c. 484. Sculptures 485. Photographers 486. Tattooers Total 70. Pictorial Art & Sculptures
		71. Music acting dancing	487. Music composers & teachers 488. Bandmasters & Players (not military) 489. Piano tuners 490. Actors, singers & dancers and their accompanists Total 71. Music acting dancing & c. Total XX- Learned, Artistic Profession
	XXI Sport	72. Sports	491. Race-course services, trainers, bookmakers jockeys 492. Shikaris, falconers, birdcatchers 493. Huntsmen whippers Total 72. Sport
		73. Games & Exhibitions	494. Owners & managers of places of public entertainments 495. Persons engaged in service of places of public entertainment 496. Exhibitors of trained animals 497. Circus owners, managers & c. 498. Conjurers, buffoons reciters, fortune tellers 499. Tumblers, aerobots, wrestlers professional cricketers Total 73. Games & Exhibitors Total XXI Sports Total F - Professions.
G	XXII	74. Earth work & c	500. Well sinkers 501. Tank diggers, and excavature 502. Road, canal & railway labourers 503. Miners (unspecified) Total 74. Earthwork & c.
Unskilled labour not Agricultural	Earthwork & General Labour	75. General labour	504. General Labour Total 75. General Labour Total XXII- Earth work and General Labour
	XXIII	76. Indefinite	505. Uncertain or not returned Total 76- Indefinite
	Indefinite & disreputable occupation	77. Disreputable	506. Prostitutes including saquins & neauchis 507. Procurers, pimps & c 508. Receivers of stolen goods

Appendix No. 9 (continued)

1	2	3	4
			509. Witches, wizards, cowpoisoners & c. Total 77. Disreputable Total XXIII. Indefinite & disreputable occupation Total G. Unskilled labour not agricultural
H Means of subsistence independent of occupation	XXIV Independent	78. Property & Alms	510. House rent shares & other property not by land 511. Allowances from patrons or relatives. 512. Educational or other endowments scholarship & c. 513. Mendicancy (not in connection with a religious order) Total 78. Property & Alms
		79. At the State Expense	514. Pension Civil Services 515. Pension military services 516. Pension unspecified 517. Inmates of asylums & c. 518. Prisoners for debt 520. Prisoners convicted or in reformatories & c Total 79. At the State Expense Total XXIV. Independent Total H. Means of subsistence independent of occupations Grand Total.

APPENDIX No. 10

CLASS AND ORDER OF OCCUPATION ^{ALCLAS} QUALIFICATION DURING THE CENSUS YEAR 1901

Details of class	Details of order	No. of sub-orders	Groups
Class I Government (A)	Order I - Administration	3	10(1-10)
	" II - Defence	2	9(11-19)
	" III - Service of native and foreign states	2	5(20-24)
Class II Pastures & Agriculture (B)	" IV - Provision and care of animals	2	11(25-35)
	" V - Agriculture	4	24(36-59)
Class III Personal service(C)	" VI - Personal, Household & Sanitary services	3	16(60-75)
Class IV Preparation and Supply of Material Subsistence (D)	" VII - Food, Drink & stimulants	3	60(76-135)
	" VIII - Light, Firing & Forage	2	15(136-150)
	" IX - Building	2	16(151-166)
	" X - Vehicles & Vessels	3	12(167-178)
	" XI - Supplementary Re-quirements	11	69(179-247)
	" XII - Textiles, Fabrics & Dress	5	59(248-306)
	" XIII - Metals & Precious Stones	4	23(307-329)
	" XIV - Glass, Earthen & Stonewares	2	10(330-339)
	" XV - Wood, Cane & leaves etc.	2	10(340-349)
	" XVI - Drugs, gums & Dyes etc	2	20(350-379)
	" XVII - Leather etc.	1	12(380-391)
Class V Commerce, Transport and Storage (E)	" XVIII - Commerce	5	20(392-411)
	" XIX - Transport & storage	5	32(412-443)
Class VI Professions (F)	" XX - Learned & Artistic Professions	9	47(444-490)
	" XXI - Sport	2	9(491-499)
Class VII Unskilled labour, Non-Agricultural (G)	" XXII - Earthware & general labour	1	5(500-504)
	" XXIII - Indefinite & disreputated occupation	2	5(505-509)
Class VIII- Means of subsistence Independent of Occupation (H)	" XXIV - Independent means	2	11(510-520)

APPENDIX No. 11

DISTRIBUTION OF POPULATION INTO DIFFERENT OCCUPATIONS BY ORDER OF
OCCUPATIONS DURING 1891 AND 1901

Order of occupation	Population supported		Percentage variation (+ or -)
	1891 ('000)	1901 ('000)	
1. Administration	573	843	- 32.0
2. Defence	53	72	- 26.3
3. Service of Native & Foreign States	7	11	- 36.1
4. Provision and care of Animals	522	392	+ 33.4
5. Agriculture	31181	28521	+ 9.4
6. Personal, Household & sanitary services	2678	2536	+ 5.6
7. Personal, Food, Drink & stimulants	2650	2297	+ 15.5
8. Light, Fire and Forage	96	771	- 87.4
9. Buildings	124	149	- 17.4
10. Vehicles and Vessels	6	15	- 59.1
11. Supplementary Requirements	233	307	- 24.1
12. Textile, Fabrics and Dress	1890	2190	- 13.7
13. Metals and Precious Stones	660	644	+ 2.7
14. Glass, Earthen and Stonewares	433	473	- 8.4
15. Wood, Cane and leaves etc.	561	631	- 11.2
16. Drugs, Gums and dyes etc.	131	60	+ 118.9
17. Leather etc.	350	362	- 3.4
18. Commerce	366	484	- 24.2
19. Transport and storage	546	689	- 20.7
20. Learned and Artistic Professions	622	769	- 18.1
21. Sport	20	18	+ 13.1
22. Earthwork and general labour	3134	3960	- 20.8
23. Indefinite and Disputed occupation	132	21	+ 512.8
24. Independent occupations	721	690	+ 4.8

APPENDIX No. 12

DISTRIBUTION OF TOTAL POPULATION BY OCCUPATIONAL CLASSES IN 1901

Details of class	Total Population supported (workers and dependents) ('000)
A Government (Orders I, II and III)	634
B Pastures and Agriculture (Orders IV and V)	31703
C Personal Services (Orders VI)	2678
D Preparation and supply of Material substances (Orders VII to XVII)	7134
E Commerce, Transport and Storage (Orders XVIII and XIX)	912
F Professions (Orders XX and XXI)	642
G Unskilled labour not Agricultural (Orders XXII and XXIII)	3286
H Means of subsistence Independent of Occupations (Order XXIV)	721
Total supported population	----- 47690
Less Total dependents	24383
No. of total workers	----- 23307

APPENDIX No. 13

DETAILS OF OCCUPATIONAL DIVISIONS AND SUB-DIVISIONS OF 1911, 1921 and 1931

Class/sub-class/order	Group No.	Occupation and Means of livelihood
A. Production of Raw Materials		
1. Exploitation of the surface of the earth		
	Total Population	
	A. Production of Raw materials	
	I. Exploitation of the surface of the earth	
	1. Pasture and Agriculture	
	(a) Ordinary cultivation	
A. Ordinary cultivation	1. Income from rent of Agricultural land	
	a. Zamindar ba assami	
	b. Dakhilkar assami be shikmi	
	c. Assami be shikmi	
	2. Ordinary cultivators	
	a. Zamindar ba jot khud	
	b. Dakhilkar assami be jot khud	
	c. Assami be jot khud	
	3. Agents, managers, landed estates (not (planters) clerks, rent collection etc.	
	4. Farm servants and field labourers etc.	
b. growers of special products and market gardening	(b) Growers of special products and market gardening	
	5. Tea, Coffee, ⁱⁿ clacona and Indigo plant articles	
	6. Fruit flower, vegetables, betel, vine areca nut etc. growers	
c. Forestry	(c) Forestry	
	7. Forest officers, managers, guards etc.	
	8. Wood cutters, fire wood, lac catchers rubber etc. collectors & charcoal business.	

Appendix No. 13 (continued)

d. ^{ai}Rousing and
Farm Stock

(d) Rousing of Farm Stock

9. Cattle and buffalow breeders and keepers
10. Sheep goat and pig breeders
11. Breeders of other animals (Horses, mules, camels, asses)
12. Herdsmen, shephards, goathards etc.

e. Raising of small
animals

(e) Raising of small animals

13. Birds bees sillewarms etc.

2. Fishing & Hunting

14. Fishing

15. Hunting

II. Eextraction of animals

3. Mines

16. Coal mines and Pet^{rol}roleum well17. Mines & metalic minerals (gold ^{iron, manganese etc,} nonmanagement)4. ^{rr}Quaries of Hard Rocks

18. Other minerals (Jade, Diamonds, limestone)

5. Salt etc.

19. Rock, sea and Marsh salt

20. Extraction of saltpetic, alum and other substances ~~and ruble in motion.~~
^{soluble in water}B. Preparation and supply of
material substances

III. Industry

6. Textiles

21. Cotton spinning cleaning and pressing

22. Cotton spinning sizing and weaving

23. Jute spinning pressing and weaving

24. Rope twine string

25. Other f@brics (coconut flax hemp)

26. Wool carders, ^sspinment weavers of woollen blankets and carpets

27. Silk shidders and weavers

28. Hair, camel, horse hair, bristles wave & brush makers

Appendix No. 13 (continued)

- | | |
|--|---|
| | 29. Persons occupied with leathers |
| | 30. Dyeing bleaching printing preparation and
sponging of textiles |
| | 31. Other (lace, crape, embroiding [✓] finiges)
in sufficiently described textile industry. |
| 7. Hides skins &
Hard materials
from animal
kingdom | 32. Tanners, cuniers, leather dresses & dyers |
| | 33. Makers of leather articles such as trunk
water-bags etc. |
| | 34. Furriers (from fur) |
| | 35. Bone, Ivory Hern shell etc. workers |
| 8. Wood | 36. Sawyers, carpenters, turners & joiners |
| | 37. Basket makers and other industries of woody
materials including leaves |
| 9. Metals | 38. Forging and rolling of iron and other metals |
| | 39. Plough & other agricultural implement makers |
| | 40. Makers of arms, guns etc. |
| | 41. Other makers in iron & makers of implements
& other principally and exclusively of iron |
| | 42. Workers in iron, copper & Bell metal |
| | 43. Workers in other metals (tin, zinc lead) |
| | 44. Workers in mints, die sinkers etc. |
| 10. ^{er} Chemics | 45. Makers of glass & crystalware |
| | 46. Makers of Porcelain & Crockery |
| | 47. Potters and earth pipe & bowl makers |
| | 48. Brick & tile makers |
| | 49. Others (Mosaic, Tale, Mica, alabasters) |
| 11. Chemical
products pro-
perly so
called and
analogous | 50. Manufacturers of matches & explosives |
| | 51. Manufacturers of areated & mixed waters |
| | 52. Manufacturers of dies, print & ink |
| | 53. Manufacturere s & refining of vegetable and
mineral oils. |

Appendix No. 13 (continued)

- | | |
|--|---|
| | 54. Manufacturers of paper, cardboard and paper match. |
| | 55. Others (soap, candles, lac, cultch, perfumer & miscellaneous drugs. |
| 12. Food Industries | 56. Rice powders, huskers & flour grinders |
| | 57. Bakers and Biscuit makers |
| | 58. Grain parchers etc. |
| | 59. Butchers |
| | 60. Fish curers |
| | 61. Butter cheese & ghee makers |
| | 62. Makers of sugar molasses & ghee |
| | 63. Sheatmeat makers, preparing jam condiments etc. |
| | 64. Beawers and distillers |
| | 65. Toddy Drawers |
| | 66. Manufacturers of tobacco opium & Ganja |
| | (a) Opium factory (Manager workmen) |
| 13. Industries of the dress & the toilet | 67. Hat cap and turban makers |
| | 68. Tailors, milliness, dress makers, darners, embroiders on linen |
| | 69. Shoe, boot and sandal makers |
| | 70. Other industries pertaining to dress gloves, socks, gaiters, belts, buttons |
| | 71. Washing cleaning and dyeing |
| | 72. Barbers Hairdressers & wig makers |
| | 73. Other industries connected with the toilet (tatooers, shampooers bath houses) |
| 14. Furniture Industries | 74. Cabinet makers carriage painters |
| | 75. Upholsters tent makers |
| 15. Building Industries | 76. Lime business, cement workers |
| | 77. Excavators Plinth Builders & well sinkers |

Appendix No. 13 (continued)

- | | |
|--|---|
| 16. Construction
of Means of
Transport | 78. Stone and marble workers, masons and
brick layers

79. Others (thatches, building contractors
tilers plumbers lork smith etc.

80. Cart carriage Palki etc. makers and
wheelsight.

81. Saddlers, harness makers whip and bush
makers

82. Ship and boat builders |
| 17. Production &
Transmission of
Physical Forces | 83. Gas work, electric light and Ice
Factories. |
| 18. Industries of
luxury | 84. Printers lithographers engravers etc.

85. Newspaper & magazine managers & Editors
Journalists etc.

86. Book binders and stitchers envelop makers

87. Makers of musical instruments

88. Makers of watches and clocks & optical
Photographic and surgical instruments

89. Workers in Precious stones and metals
enamellers, imitations jewellery makers
gilders

90. Makers of Bangles, Koraries, lead and
other necklaces, spongles lingans and
sacred threads

91. Toy, kite, cage, fishing tackle, makers
toxidamists etc.

92. Others including managers, persons other
than performers employed in theatres and
other places of public entertainment,
employees of public societies race course
services, huntsmen |
| 19. Industries
connected with
Refuse matter | 93. Sweepers, scavengers, dust and sweeping
contractors |

IV. Transport

- | | |
|------------------------|---|
| 20. Transport by water | 94. Harbor works, Dockyards and Pilots. |
|------------------------|---|

Appendix No. 13 (continued)

- 95. Shipowners - their employees, ship brokers, ship officers engineers, Mariners, Firemen
- 96. Persons employed on Maintenance of streams, rivers and canals (including construction)
- 97. Boatowner, Boatmen and Towmen.
- 21. Transport by Road 98. Persons employed on the construction and maintenance of Roads and Bridges
- 99. Cartowners & Drivers, coachmen, stable Tramway, Mail carriage, Manager Employees (Excluding private servants)
- 100. Palki Bearers & owners
- 101. Pack Elephant camel mule ass and bullock cart owners & drivers
- 102. Porters and Messengers
- 22. Transport by Rail 103. Rly employees of all kinds other than construction coolies
- 104. Labourers employed on Rly construction
- 23. Post Office, Telegraph & Telephone services 105. Post Office, Telegraph and Telephone services.

V - Trade

- 24. Banks, establishments of credit, exchange and Insurance
 - 106. Bank managers, moneylenders, exchange & insurance agent money chargers, brokers and their employees
- 25. Brokerage commission and Export
 - 107. Brokers Commission Agents commercial travellers warehouse owners & employees
- 26. Trade in Textiles 108. Trade in piece goods wool cotton silk & other textiles.
- 27. Trade in skins, leather & Furs
 - 109. Trade in skin, leather, furs, feathers horns etc.
- 28. Trade in wood 110. Trade in wood (not fire wood) Corck & Bark.

Appendix No. 13 (continued)

- | | |
|---|---|
| 29. Trade in Metals | 111. Trade in Metals machinery knife tools & sellers etc. |
| 30. Trade in Pottery | 112. Trade in Pottery |
| 31. Trade in Chemical Products | 113. Trade in chemical products (drugs dyes paints petroleum explosives etc.) |
| 32. Hotels, Cafes, Restaurants | 114. Vendors of wine liquors aerated water |
| | 115. Owners & Managers of Hotels Cookshops Sarais & their employees |
| 33. Other Trade in Food Stuffs | 116. Fish dealers |
| | 117. Grocers & sellers of vegetable oil salt and other condiments |
| | 118. Sellers of milk butter ghee poultry egg |
| | 119. Sellers of sweetmeat, sugar, gur molasses |
| | 120. Cardamon betel leaf vegetable fruits and areca Nut seller |
| | 121. Grain and Pulse dealer |
| | 122. Tobacco opium ganja etc. |
| | 123. Dealers in sheep goat pigs |
| | 124. Dealers in hay grass fodder |
| 34. Trade in Clothing and Toilet articles | 125. Trade in readymade clothing and other articles of dress & the toilet (Hat umbrella socks shoes perfumes) |
| 35. Trade in furniture | 126. Trade in Furniture carpets curtains and Beddings |
| | 127. Hardware, Looking, utensils porcelain crockery glass ware bottles articles for gardening the celler etc. |
| 36. Trade in building materials | 128. Trade in building materials (stone Bricks Plaster cement sand tiles) |
| 37. Trade in Means of Transport | 129. Dealers & Hirers of elephant camels horses cattle asses mules & sellers of carriage saddely |
| 38. Trade in Fuel | 130. Dealers in fire wood charcoal coal cowdung etc. |
| 39. Trade in articles of Heavy & those pertaining to letters Arts & Science | 131. Dealers in precious stones jewlery clock optical Instruments etc. (real and imitation) |

- | | |
|------------------------------|--|
| | 132. Dealers in common Bangles beads necklace fans small articles toys hunting fishing tackle Flowers. |
| | 133. Publishers Booksellers stationers dealers in music pictures musical instruments and curiosities |
| 40. Trade in Refuge matters. | 134. Dealers in rags, stable refuse etc. |
| 41. Trade in other sorts | 135. Shopkeepers otherwise unspecified |
| | 136. Stinerant Traders Pedlars Hawkers |
| | 137. Cfonjurors, acrobats, fortune tellers recitors, exhibitors of curiosities and wild animals |
| | 138. Other trades (including farmers of ponds tolls and markets |

C. Public Administration and Liberal Acts

VI. Public Force

- | | |
|------------|---------------------------|
| 42. Army | 139. Army (Imperial) |
| | 140. Army (Native States) |
| 43. Navy | 141. Navy |
| 44. Police | 142. Police |
| | 143. Village watchmen |

VII. Public Administration

- | | |
|--------------------------------|---|
| 45. Public Adminis-
tration | 144. Service of the State |
| | 145. Service of Native & Foreign States |
| | 146. Municipal & other local (not village) service |
| | 147. Village Officials and servants other than watchmen |

VIII. Professions & Liberal Acts

- | | |
|--------------|---|
| 46. Religion | 148. Priests, Ministers etc. |
| | 149. Religious mendicants inmates of Monasteries |
| | 150. Catecherts readers church & missionaries service |
| | 151. Temple Burial grounds or being grounds service Pilgrim conductors circumceries |

Appendix No. 13 (continued)

47. Law

152. Lawyers of all kind including Kazi Law Agents and Mukhtars

153. Lawyers' clerks petition writers

48. Medicines

154. Medical practitioners of all kinds dentists & Veterinary surgeons

155. Midwives vaccinators compounders, nurses Masseurs etc.

49. Instructions

156. Professors & Teachers of all kinds (except Law music drawing dancing) & clerks and servants connected with education

50. Letters Arts & Sciences

157. Public scribes stenographers

158. Architects surveyors engineers & their employees.

159. Others (authors Photographers Artists Botanists astrologers)

160. Music composers & Masters, Players of all kinds of Music Instruments (not Military) surgeon & dancers

D. Miscellaneous

IX. ^{Persons} Living on their income

161. Proprietors (other than agricultural land) fund scholarship holders & Pensioners

X. Domestic services

52. Domestic

162. Cooks, water carriers doorkeepers watchmen and other indoor servants

163. Private groomers, coachmen, dog lings etc.

XI. Insufficiently described occupations

53. General Terms which do not indicate occupation

164. Manufacturers Businessmen contractors other than unspecified

165. Cashiers Accountants Book keepers & other employees in unspecified offices warehouses and shops.

166. Mechanics otherwise unspecified

167. Labourers and workmen otherwise unspecified.

Appendix No. 13 (continued)

XII. Unproductive

- | | |
|--|--|
| <p>54. Inmates of Jails
 Asylums
 Asylums &
 Hospitals</p> <p>55. Beggars vagrants
 Prostitutes</p> | <p>168. Inmates of Jails ^{asylums} asylums & hospitals</p> <p>169. Beggars Vagrants ^{us etc} Processes Prostitutes
 receivers of stolen goods, cattle
 Poisoners.</p> |
|--|--|

APPENDIX No. 14

DETAILS OF OCCUPATIONAL CLASSES, SUB-CLASSES, ORDERS AND GROUPS DURING CENSUS YEARS 1911, 1921 AND 1931

Details of classes		Details of orders		No. of sub-orders	Groups
					Nos.
Class I	Order I - Exploitations of the surface of earth			2	15(1 to 15)
Production of Raw Materials (A)	" II - Extraction of Minerals			3	5(16 to 20)
Class II	" III - Industry			13	73(21-93)
Preparation and supply of Material substances(B)	" IV - Transport			4	12(94 - 105)
	" V - Trade			19	33(106 - 138)
Class III	" VI - Public Force			3	5(139 - 143)
Public Administration and Liberal Acts (C)	" VII - Public Administration			4	4(144 - 147)
	" VIII - Professional and liberal Acts			5	13(148 - 160)
	" IX - Persons living on their Income			1	1(161)
Class IV	" X - Domestic service			1	2(162 - 163)
Miscellaneous (D)	" XI - Insufficiently Described Occupations			1	4(164 - 167)
	" XII - Unproductive			2	2(168 - 169)

* This scheme of occupational classification followed in India during the Census years 1911, 1921 and 1931 is a modified form of original scheme of occupational classification devised in 1889 by M. Jacques Bertillon (Chef des Travaux Statistiques de la ville de Paris). In the original scheme these were 4 classes, 12 sub-classes, 66 orders, 206 sub-orders and 499 groups.

APPENDIX No. 15

DISTRIBUTION OF POPULATION BY OCCUPATIONAL CLASSES IN 1911

Details of occupational classes and sub-classes		Population supported (Workers and Dependents) ('000)
A. Production of Raw materials		35276
I Exploitation of the surface of earth	35267	
II Exploitation of Minerals	9	
B. Preparation and supply of Raw material		8424
III Extraction Industry	5834	
IV Transport	450	
V Trade	2140	
C. Public Administration and Liberal ^{arts} ACTS		1190
VI Public Force	337	
VII Public Administration	270	
VIII Professions and liberal Arts	533	
D. Miscellaneous		3173
IX Persons living on their Income	70	
X Domestic service	921	
XI Insufficiently described occupations	1661	
XII Unproductive	521	
Total Population of U.P.		48013

APPENDIX No. 16

DETAILS OF OCCUPATIONAL CLASSIFICATION IN 1951*

In the scheme of occupational classifications followed in U.P. (India) in the census of 1951 there are eight livelihood classes - Four major Agricultural classes and four major Non-Agricultural classes. These are as under;

Agricultural classes:

1. Cultivators of Land wholly or mainly owned and their dependents.
2. Cultivators of land wholly or mainly unowned and their dependents.
3. Cultivating labourers and their dependents.
4. Non-cultivating owners of land, agricultural rent receivers and their dependents.

Non-Agricultural classes :

5. Production other than cultivation
6. Commerce
7. Transport
8. Other services and miscellaneous sources

All the eight livelihood classes stand further sub-divided into following three categories:

1. Self-supporting persons
2. Non-earning dependents
3. Earning dependents

* The Census of 1941 did not provide for collection of occupational data and as such details for 1941 census are not available in this respect.

APPENDIX No. 17

OCCUPATIONAL DIVISIONS AND SUB-DIVISIONS 1951

Division O(sub-Divisions 6; Groups 21)

Primary Industries not elsewhere specified

0.1 Stock Raising

0.11

0.12

0.10

(1931 Groups 21 to 23)

0.2 Rearing of small animals and insects

0.21

0.22

0.23

0.24

0.20

(1931 Groups 24 to 26)

0.3 Plantation Industries

Owners, managers and workers in

0.31

0.32

0.33

0.30

(1931 Groups 9 to 15)

0.4 Forestry and Wood-cutting

0.40

0.41

0.42

0.43

Source: Census of U.P. 1951 Economic Tables pp. 5-15.

Appendix No. 17 (continued)

0.44

(1931 Groups 17 to 20)

0.5 Hunting (including trapping and Game Propagation)
(1931 Group 28)

0.6 Fishing

0.60

0.61

0.62

(1931 group 27)

Division 1 (Sub-divisions 8; Groups 42)

1.0 Non-metallic mining and quarrying not otherwise classified -
including mining and quarrying of such materials as precious and
semi-precious stones, asbestos, gypsum, sulphur asphalt, bitumen

(1931 Groups 39 and 41)

1.1 Coal Mining.

Mines primarily engaged in the extraction of anthracite and of
soft coals such as bituminous, sub-bituminous and lignite

(1931 Group 35)

1.2 Iron ore mining

(1931 group 30)

1.3 Metal mining except iron ore mining

1.31

1.32

1.33

1.34

1.30

(1931 Groups 29 and 31 to 34)

1.4 Crude Petroleum and Natural Gas

Oil well and natural Gas, well operations (including drilling)
and oil or bituminous sand operations

(1931 group 36)

Appendix No. 17 (continued)

1.5 Stone - quarrying, clay and sand-pits.

Extraction from the Earth of stone, clay sand and other materials used in building or manufacture of cement; Bajri, and Kankar collections, digging and selling of clay

(1931 Group 37)

1.6 Mica (1931 Group 38)

1.7 Salt, saltpetre and saline substance

(1931 Group 40)

D vision 2 (sub-divisions 10; Groups 39)

Processing & Manufacture - Foodstuffs, Textiles, Leather, and Products thereof

2.0 Food Industries otherwise unclassified

2.01 Canning and preservation of fruits and vegetables

2.02

2.03

2.00

(1931 Groups 73, 79 and 80, 81 part)

2.1 Grains and pulses

2.11

2.12

2.13

2.10

(1931 Groups 71, 72)

2.2 Vegetable Oil and dairy products

2.21

2.22

2.23

(1931 Groups 68 and 81 part)

2.3 Sugar Industries

2.31

2.30

(1931 Group 74)

Appendix No. 17 (continued)

2.4 Beverages

2.41
2.42
2.43
2.40

(1931 Groups 76, 77 and 67)

2.5 Tobacco

2.51
2.50

(1931 Group 78)

2.6 Cotton Textiles

2.61
2.62
2.63

(1931 Groups 42, 43 and 49)

2.7 Wearing apparel (except footwear) and made up textile goods

2.71
2.72
2.73
2.74
2.75
2.76
2.70

(1931 Groups 52, 83-84, part of 89)

2.8 Textile Industries Otherwise Unclassified

2.81
2.82
2.83
2.84
2.85
2.86
2.80

(1931 Groups 44 - 48 and 50)

2.9 Leather, leather products and footwear

2.91
2.92
2.90

(1931 Groups 51, 82)

Appendix No. 17 (continued)

Division 3 (Sub-divisions 9; Groups 32)

Processing and Manufacture - Metals, Chemicals and Products thereof

3.0 Manufacture of metal products, otherwise unclassified

3.01
3.02
3.03
3.04
3.05
3.06

(1931 Group 58, 62 Part)

3.1 Iron and Steel (Basic Manufacture) - including all process such as smelting and refining; rolling and drawing; and alloying and the manufacture of castings, forgings and other basic forms of ferrous metals

(1931 Group 57 part)

3.2 Non-Ferrous Metals (Basic Manufacture) - Smelting and refining, rolling, drawing and alloying and the manufacture of castings, forgings and other basic forms of non-ferrous metals

(1931 Group 57 part)

3.3 Transport Equipment

3.31
3.32
3.33
3.34
3.30

(1931 Groups 91, 92 and 93)

3.4 Electrical machinery, apparatus, appliance and supplies

3.41
3.42
3.43
3.40

(1931 Group 94 Part)

3.5 Machinery (other than electrical machinery) including Engineering workshops

3.51

(1931 Groups 58 - 62 Part)

Appendix No. 17 (continued)

3.6 Basic Industrial Chemicals, Fertilisers and Power Alcohol

3.61
3.63
3.64
3.65

(1931 Groups 66 Part and 70 Part)

3.7 Medical and Pharmaceutical Preparations.

(1931 Group 70 Part)

3.8 Manufacture of Chemical products otherwise unclassified

3.81
3.82
3.83
3.84
3.85
3.86
3.87
3.80

(1931 Group 70 Part)

Division 4 (Sub-divisions 10; Groups 30)

Processing and Manufacture - Not elsewhere specified

4.0 Manufacturing Industries Otherwise unclassified

4.01
4.02
4.03
4.04
4.05
4.06
4.07
4.08
4.09
4.00

(1931 Groups 53, 98 - 99)

4.1 Products of Petroleum and Coal

4.11
4.12
4.10

(1931 Group 69)

4.2 Bricks, tiles and other structural clay products. Structural clay products such as bricks, tiles, etc., Brick Kiln workers

(1931 Group 64)

Appendix No. 17 (continued)

4.3 Cement - Cement pipes and Other Cement products- Manufacture of Cement, Cement pipes and Cement Concrete products

(1931 Group 65 Part)

4.4 Non-metallic mineral products

4.41
4.42
4.43
4.44
4.40

(1931 Group 63 and 65 Part)

4.5 Rubber products

(1931 Group 99 Part)

4.6 Wood and Wood products other than furniture and fixtures.

4.61
4.62
4.63
4.64
4.60

(1931 Groups 54, 55 and 56)

4.7 Furniture and Fixtures

Manufacture of household, office, public building, professional and restaurant furniture, office and store fixtures, screens, shades, etc. regardless of material used; Cot repairer (Khatbuna)

(1931 Groups 88 and 89 Part)

4.8 Paper and Paper Products

Manufactures of Paper and Paper Board and articles of pulp, paper and paper board

(1931 Group 70 Part)

4.9 Printing and Allied Industries

Employees of Government Press

4.91
4.92

(1931 Group 95)

Appendix No. 17 (continued)

Division 5 (Sub-divisions 8; Groups 13)

Construction and Utilities

5.0 Construction and maintenance of Works Otherwise unclassified

5.1 Construction and maintenance - Buildings

5.11

5.12

5.13

5.14

5.10

(1931 Group 90)

5.2 Construction and maintenance - Roads, Bridges and other Transport Works.

Railway Road and Building contractors. Railway Coolie or Mazdoor if in construction or supply

(1931 Groups 105, 106 and Part of 113)

5.3 Construction and maintenance - Telegraph and Telephone Lines

5.4 Construction maintenance operations - Irrigation and other agricultural works. Canal Engineers; employees of tractor organisation; Persons engaged in sinking of wells

(1931 Groups 103-104 Part)

5.5 Works and Services

5.51

5.52

(1931 Group 94 Part)

5.6 Works and Services - Domestic and Industrial Water Supply.

(1931 Group 161 Part)

5.7 Sanitary Works and Services - including Scavengers

(1931 Groups 100 and 161 Part)

Division 6 (Sub-Divisions 9; Groups 18)Commerce

6.0 Retail Trade Otherwise Unclassified

6.01

6.02

6.03

6.00

6.04

(1931 Groups 119-125 Part; 138-152 Part)

Appendix No. 17 (continued)

6.1 Retail trade in foodstuffs (including beverages and narcotics)

6.11
6.12
6.13
6.14
6.15

(1931 Group 126, 128, 129 - 137 Part)

6.2 Retail Trade in fuel (including petrol)

6.21
6.20

(1931 Group 145 Part, 125 Part)

6.3 Retail trade in textile and leather goods. Retail trade (including law ~~fers~~ and Street vendors) in piece goods, wool-cotton, silk, hair, wearing apparel, made in ^{the} textile goods, skin, leather, furs, feathers etc.

(1931 Groups 117-118 Part)

6.4 Wholesale trade in foodstuffs.

Wholesale dealers in grains & pulses, sweetmeats, sugar and spices, dairy products, eggs and poultry, animal for food, fodder for animals, other foodstuffs wholesale dealers in tobacco, opium and ganja

(1931 Groups 129-137 Part)

6.5 Whole sale trade in commodities other than foodstuffs.

(1931 Groups 117-125 Part, 138 - 150 Part)

6.6 Real Estate

House and estate agents and rent collectors except agricultural land.

(1931 Group 116 Part)

6.7 Insurance

Insurance carriers and all kinds of insurance agents and other persons connected with insurance business

(1931 Group 115 Part)

6.8 Moneylending, banking and other financial business

Officers, employees of joint stock banks & co-operative banks; Munims, agents or employees of indigeneous banking firms; individual money lenders, exchangers and exchange agents, money changers and brokers and their agents; cashier in co-operative societies

(1931 Group 115 Part)

Appendix No. 17 (continued)

Division 7 (Sub-divisions 10; Groups 11)

Transport Storage and Communications.

7.0 Transport and Communications otherwise Unclassified and incidental services.

7.1 Transport by road.

Owners, managers and employees connected with mechanically driven and other vehicles (excluding domestic servant) palki, etc., bearers and owners, pack, elephant, camel, mule, ass and bullock owners and drivers, porters and messengers, persons engaged in road transport not otherwise classified, including freight transport by road, the operation of fixed facilities for road transport such as toll roads, highway bridges, terminal and parking facilities. Palledari, horses, ponies, Tonga, Ikka, Rickshaw drivers, drivers of military cars and lorries and drivers of P.A.C. lorries.

(1931 Group 107 - 111)

7.3 Transport by air

Persons concerned with airfields and aircraft other than construction of airfield and airports.

(1931 Group 101 Part)

7.2 Transport by water

Owners and employees, officers, mariners etc., of ships plying on the high seas, ships and boats plying on inland and coastal waters, persons employed in harbours, docks, rivers and canals, including pilots, ship brokers; Thekedars of Ferries

(1931 Group 102 and 103 - 104 Part)

7.4 Railway Transport

7.41

7.42

(1931 Groups 110 - 113 Part)

7.5 Storage and Warehousing

The operation of storage facilities such as warehouses, cold storage, safe deposits when such storage is offered as an independent service; diggers of warehouses.

(1931 Group 116 Part)

7.6 Postal services

(1931 Group 114 Part)

Appendix No. 17 (continued)

7.7 Telegraph Services

(1931 Group 114 Part)

7.8 Telephone services

(1931 Group 114 Part)

7.9 Wireless Services

(1931 Group 114 Part)

Division 8 (Sub-divisions, Groups 20)

Health, Education and Public Administration

8.1 Medical and other Health Services

8.11
8.12
8.13
8.14
8.15
8.16
8.17
8.10

(1931 Groups 169 - 173)

8.2 Educational Services and Research

8.21
8.22
8.20

(1931 Group 174-175 and 180)

8.3 Army, Navy and Air Force

8.31
8.32
8.33

(1931 Group 153 - 156)

8.4 Police (other than village watchmen)

(1931 Group 157)

8.5 Village officers and servants, including village watchmen

(1931 Group 158, 162)

8.6 Employees of Municipalities and Local Board (but not including persons classifiable under any other division or sub-division)

(1931 Group 161)

Appendix No. 17 (continued)

- 8.7 Employees of State Governments (but not including persons classified under any other division or sub-divisions); Employees of State Agriculture Department

(1931 Group 159 and 150 Part)

- 8.8 Employees of the Union Government (but not including persons classifiable under any other division or sub-division)

(1931 Groups 159 and 160 Part)

- 8.9 Employees of Non-Indian Governments.

(1931 Group 160 Part)

Division 9 (Sub-divisions 9; Groups 20)

Services not elsewhere specified

- 9.0 Services otherwise unclassified.
(Independent Labourers) palmists and astrologers; water divisors

- 9.1 Domestic services (but not including services rendered by members of family households to one another)

9.11

9.12

9.13

9.10

(1931 Groups 186 - 187)

- 9.2 Barbers and beauty Shops.
Barbers, hair dressers and wig makers, tatoors, shampooers, bath houses; Hair cutting saloom

(1931 Groups 86 - 87)

- 9.3 Laundries and Laundry Services
Laundries and laundry services, washing & cleaning

(1931 Group 85)

- 9.4 Hotels, resturants and eating houses
Gardener of a Hotel

(1931 Group 127)

- 9.5 Recreation Services
Production and distribution of motion pictures and the operation of cinemas and allied services, Managers and employees of theatres, opera companies, etc., musicians, actors, dancers, etc. conjurers, actrobats, reciters, exhibitors of curiosities and wild animals, radio broadcasting studios, Wrestlers.

(1931 Groups 182 - 184)

Appendix No. 17 (continued)

9.6 Legal and business services

9.61
9.62
9.63
9.64
9.65

(1931 Groups 167, 168, 176 and 177)

9.7 Arts, letter and journalism

9.71
9.72
9.73

(1931 Group 178 Part, 179)

9.8 Religious, Charitable and Welfare Services

9.81
9.82
9.83

(1931 Groups 163 to 166)

Non-productive Sources

(Groups outside the prescribed divisions)

- (i) Persons living principally on income from non-agricultural property.
- (ii) Persons living principally on pensions, remittances, scholarships and funds.
- (iii) Inmates of asylums, almshouses and recipients of doles.
- (iv) Beggars and vagrants.
- (v) All other persons living principally on income derived from non-productive activities; Prostitutes.

APPENDIX No. 18

NATIONAL CLASSIFICATION OF OCCUPATIONS 1961¹ DIVISIONS
DIVISIONS

- 0. Professional, Technical and Related Workers.
- 1. Administrative, Executive and Managerial Workers
- 2. Clerical and Related Workers.
- 3. Sales Workers.
- 4. Farmers, Fishermen, Hunters, Loggers, & related Workers.
- 5. Miners, Quarrymen and Related Workers.
- 6. Workers in Transport And Communication Occupations.
- 7-8. Craftsmen, Production Process Workers and Labourers not
Elsewhere classified. (n.e.c)
- 9. Service, Sport And Recreation Workers.
- 10. Workers not classifiable by occupation.

Divisions and Groups

- 0. Professional, Technical & Related Workers.
- 0.0 Architects, Engineers and Surveyors.
- 0.1 Physicists, chemists, Geologists and other physical scientists.
- 0.2 Biologists, Veterinarians, agronomists and related scientists.
- 0.3 Physicians, Surgeons and Dentists.
- 0.4 Nurses, Pharmacists and other medical and health technicians
- 0.5 Teachers
- 0.6 Jourists
- 0.7 Social Scientists
- 0.8 Artists, Writers and related workers.
- 0.9 Draughtsmen, and Science and engineering technicians n.e.c.
- 0.x Other Professional, technical and related workers.

1. Source: Census of India, 1961, Vol. XV (U.P.) Part II B(111)
General Economic Table.

Appendix No. 18 (continued)

1. Administrative, Executive and Managerial Workers.
 10. Administrators, and Executive Officials, Government.
 11. Directors and Managers, wholesale and retail trade
 12. Directors, managers and working proprietors, financial institutions.
 13. Directors, Managers and working proprietors, other.
2. Clerical and Related Workers
 20. Book-keepers and cashiers
 21. Stenographers and typists
 22. Office machine operators
 28. Clerical workers, Miscellaneous
 29. Unskilled office workers.
3. Sales Workers
 30. Working proprietors, wholesale and retail trades.
 31. Insurance & real Estate Salesmen, salesmen of securities and services and auctioneers.
 32. Commercial, travellers and Manufacturers Agents.
 33. Salesmen, shop Assistants and related workers.
 34. Moneylenders and pawn Brokers.
4. Farmers, Fishermen, Hunters, Loggers and Related Workers.
 40. Farmers and Farm managers
 41. Farm workers.
 42. Hunters and related workers.
 43. Fishermen and related workers.
 44. Loggers and other Forestry workers.
5. Miners, Quarrymen and Related Workers.
 50. Miners and Quarrymen
 51. Well Drillers and related workers
 52. Mineral Treeters.
 59. Miners, quarrymen and related workers, n.e.c.

Appendix No. 18 (continued)

6. Workers in Transport and Communication Occupations

- 60. Deck officers, Engineer, Officers and Pilots, ship.
- 61. Deck and Engine room ratings (ship), Brage Crews and Boatsmen.
- 62. Aircraft Pilots, Navigators and Flight Engineers.
- 63. Drivers and Firemen, Railway Engine.
- 64. Drivers Road Transport.
- 65. Conductors, Guards and Brakesmen (Railway).
- 66. ~~Manufacture~~ Inspectors, Supervisors, Traffic Controllers and Despatchers, Transport.
- 67. Telephone, Telegraph and Related Tele communication operators.
- 68. Postmen and Messengers.
- 69. Workers in Transport and Communication occupations n.e.c.

7-8. Craftsmen, Production Process Workers and Labourers Not Elsewhere classified.

- 70. Spinners, weavers, knitters, Dyers and Related workers.
- 71. Tailors, Cutlers, Furriers, and related workers.
- 72. Leather cutters, Lasters and Sewers (Except Gloves and Garments) and related workers.
- 73. Furnacemen, Rollers, Drawers, Moulders and related Metal making and Treating workers.
- 74. Precision Instrument makers, watchmakers, jewellers and related workers.
- 75. Tool makers, Machinists, Plumbers, Welders, platers and related workers.
- 76. Electricians related electrical and electronics workers.
- 77. Carpenters, joiners, cabinet makers, coopers and related workers.
- 78. Painters and Paper Hangers.
- 79. Bricklayers, Plasterers, and construction workers n.e.c.
- 80. Compositors, Printers, Engravers, Bookbinders and related workers.

Appendix No. 18 (continued)

81. Potters, ^{Brick}Kilnmen, Glass and clay Formers and related workers.
82. Millers, Bakers, Brewmasters and related food and Beverage workers.
83. Chemical and related Process workers.
84. Tobacco preparers and Products makers.
85. Craftsmen and production process workers, n.e.e.
86. Testers, Packers, Sorters and related workers.
87. Stationary Engine and Excavating and Lifting Equipment operators and Related workers.
89. Labourers, n.e.c.
9. Service, Sport and Recreation Workers.
 90. Fire Fighters, Policemen, Guards and Related Workers.
 91. House keepers, cooks Maids and related workers.
 92. Waiters, Bartenders and Related workers.
 93. Building, Caretakers, Cleaners and Related workers.
 94. Barbers, Hair dressers, Beauticians and related workers.
 95. Launderers, Dry cleaners and Pressers.
 96. Athlets, Sportsmen and Related workers.
 97. Photographers and Related Camera Operators.
 99. Service, sport and Recreation workers n.e.e.
 - X. Workers not classifiable by Occupation
 - X0. Workers without occupation.
 - X1. Workers Reporting Occupations unidentifiable or unclassifiable
 - X2. Workers not reporting Occupation.

APPENDIX No. 19

DETAILS OF OCCUPATIONAL CLASSIFICATION OF 1961

- I. Entire population was classified into two main categories:
 1. Working Population
 2. Not working population
- II. The working population was further subdivided into following nine industrial categories:
 1. Working as cultivator
 2. Working as Agricultural labourer
 3. Working in Mining Quarrying, livestock Forestry, Fishing, Hunting and Plantations, Orchards and Allied Activities.
 4. Working at Household Industry.
 5. Working in Manufacturing other than Household Industry.
 6. Working in constructions.
 7. Working in Trade and Commerce.
 8. Working in Transport, storage and communication
 9. Working in other services.
- III. Economic status of every worker was recorded as under:-
 1. Employer
 2. Employee
 3. Single worker, and
 4. Family worker
- IV. All the non-workers were recorded separately in X Category and were sub-divided into eight classes.

APPENDIX No. 20

SCHEME OF OCCUPATIONAL CLASSIFICATION OF 1971 CENSUS

The whole population divided into two broad categories of workers and Non-workers.

Workers have been further categorised according to the type of work such as :

1. Cultivator
2. Agricultural labourer
3. Working at Household Industry
4. Other workers.

The types of workers that may come under the 'Other Workers' category are factory workers, those working in trade or transport, all Government Servants, Municipal employees, teachers, mining workers, political or social workers, building labourers etc., etc. Workers engaged in plantation and forestry have been treated as other workers.

Every worker has been divided into four classes; i. an Employee, ii. an Employee; iii. a single workers and iv. a Family worker.

CLASSIFICATION OF ECONOMIC ACTIVITIES

- I. Agriculture, Hunting, Forestry and Fishing.
- II. Mining and Quarrying
- III. Manufacturing and Repair.
- IV. Electricity, Gas and Water.
- V. Construction.
- VI. Wholesale and Retail Trade, And Restaurants and Hotels.
- VII. Transport, storage and communication.
- VIII. Financing, Insurance, Real Estate and Business Services.
- IX. Community, Social and Personal Services.

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APPENDIX No. 21

COMPARATIVE CHART OF OCCUPATIONAL CLASSES IN DIFFERENT CENSUS YEARS

Census years	Details of occupational classes and sub-classes				
	No. of classes	No. of sub-classes	No. of orders	No. of sub-orders	No. of Groups
1872	7	-	24	77	478
1881	7	-	24	77	478
1891	7	-	24	77	478
1901	7	-	24	77	520
1911	4	12	55	-	169
1921	4	12	55	-	169
1931	4	12	55	-	169
1941	Details not collected				
1951	8	-	24	-	83
1961	2	17	24	-	103

Note: Calculations are based on data published in different census reports of Uttar Pradesh from 1872 to 1971 (Provisional Totals).